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M. F. Smith
1979-1996

General Index

Catalogue #1229-1418

Journal

1979-1980

New Mexico: Sierra, Socorro, Valencia Cos.

1981-1982

Calif: Yolo, Place, Calaveras, San Joaquin, Lassen Cos.

1993

Uruguay: Depto. Maldonado
Argentina: Prov. Rio Negro

1994

Uruguay: Depto. Maldonado
Chile: Prov. Valdivia

1996

Argentina: Prov. Rio Negro

M. F. Smith
1979-1996

Catalogue #1229-1418

CATALOGUE

5 mi. S, 2.7 mi. W Truth or Consequences, 4300', Sierra Co., New Mexico

Aug. 29

+skeleton 1229	vagina closed, nulliparous ♀ Thomomys bottae	+tissues	186-50-26-6 = 79gm
+skeleton 1230	emb 1R-1L CR=15mm avg. vagina open ♀ Thomomys bottae	+tissues	218-57-30-6 = 170gm
+skeleton 1231	no emb. ♀ Thomomys bottae	+tissues	222-60-31-6 = 150gm
+skeleton 1232	no emb. ♀ Thomomys bottae	+tissues	217-55-30-6 = 98gm
+skeleton 1233	vagina closed; placental scars: 1L-2R ♀ Thomomys bottae	+chromosomes +tissues	224-68-31-6 = 124gm
+skeleton 1234	vagina ~~closed~~ open; seminal plug present; placental scars: 3L-2R ♀ Thomomys bottae	+chromosomes +tissues	218-47+-31-6 = X gm

1 mi. N, 1 mi. W San Marcial, 4700 ft., Socorro Co., New Mexico

Aug. 30

+skeleton 1235	no emb., pelvis notched ♀ Thomomys bottae	+tissues	205-62-27-6 = 99gm
+skeleton 1236	no emb. vagina closed pelvis notched ♀ Thomomys bottae	+tissues	200-55-26-6 = 83gm

San Antonio, 4550 ft., Socorro Co., New Mexico

Aug. 30

+skeleton 1237	no emb. ♀ Thomomys bottae	+tissues	235-68-29-7 = 110gm
+skeleton 1238	no emb ♀ Thomomys bottae	+tissues	214-45-26-7 = 106gm
+skeleton 1239	vag. closed, nulliparous ♀ Thomomys bottae	+chromosomes +tissues	196-57-27-6 = 70gm

Socorro, 4550 ft., Socorro Co., New Mexico

Aug. 31

+skeleton 1240	emb 1R-1L CR=5mm avg. ♀ Thomomys bottae	+tissues	216-61-30-6 = 133gm
+skeleton 1241	testes 7x5mm ♂ Thomomys bottae	+tissues	231-64-31-6 = 150gm
+skeleton 1242	vagina closed, nulliparous ♀ Thomomys bottae	+tissues	200-57-29-6 = 95gm
+skeleton 1243	testes = 6mm, abdominal, tubules not visible ♂ Thomomys bottae	+chromosomes +tissues	225-65-30-6 = 112gm
+skeleton 1244	vagina closed; placental scars: 1L-2R ♀ Thomomys bottae	+chromosomes +tissues	205-57-28-5 = X gm

San Acacia, 4700 ft., Socorro Co., New Mexico

Aug. 31

+skeleton 1245	vagina closed; no emb./no scars ♀ Thomomys bottae	+tissues	215-64-32-6 = 110gm
+skeleton 1246	vagina open; no emb./no scars ♀ Thomomys bottae	+tissues	197-50-28-6 = X gm

CATALOGUE

San Acacia, 4700 ft. Socorro Co., New Mexico

Aug. 31

+skeleton
1247 testes ≈ 9 mm, ± scrotal, tubules not visible
♂ Thomomys bottae + tissues 197-53-30-6 = 86 gm

CATALOGUE

3 mi. S La Joya, 4700', Socorro Co., New Mexico

May 11

1	1248	♀ pelvis open no emb.	Thomomys bottae	+ tissues	213-58-33-6 = 129 gm
2	1249	♀ pelvis open no emb.	Thomomys bottae	+ tissues	228-64-32-7 = 134 gm
dar 3	1250	♀ lactating	Thomomys bottae	+ tissues	224-55-33-7 = 150 gm
cedar 1	1251	♂ testes = 4mm	Thomomys bottae	+ tissues	203-56-29-6 = 96 gm
d spit 4	1252		Thomomys bottae	+ tissues	215-57-31-6 = 118 gm
d spit 3	1253		Thomomys bottae	+ tissues	231-60-32-6 = 154 gm

May 12

cedar ~~spit~~ 4	1254	♀ nulliparous	Thomomys bottae	+ tissues	200-50-29-6 = 84 gm

May 11

d spit 5	1255	♂ testes = 15mm sem. vesicle 6mm	Thomomys bottae	+ tissues	240-70-38-7 = 210 gm
sand spit 6	1256	♀ nulliparous	Thomomys bottae	+ tissues	200-50-28-6 = 98 gm
sand spit 7	skull only 1257	♂ testes = 5mm	Thomomys bottae	+ tissues	221-60-34-6 = 124 gm
Sand spit 8	1258	♀ scars 0R-2L	Thomomys bottae	+ tissues + chromosomes	226-74-32-5 = 122 gm
salt cedar 2	1259	♀ scars 1R-1L	Thomomys bottae	+ tissues + chromosomes	240-76-32-6 = 132 gm
Sand Spit 9	1260	♂ testes = 19mm SV = 10mm	Thomomys bottae	+ tissues + chromosomes	235-83-35-5 = 184 gm

3.5 mi. S La Joya, west side of Rio Grande, 4700', Socorro Co., New Mexico

May 13

	1261	♂ testes = 18mm SV = 10mm	Thomomys bottae	+ tissues + chromosomes	255-75-33-6 = 194 gm
	1262		Thomomys bottae	+ tissues	
	1263	♀ scars 1R-2L	Thomomys bottae	+ tissues	220-57-31-6 = 154 gm
	skull only 1264	♂ t = 4mm	Thomomys bottae	+ tissues	213-58-31-6 = 104 gm
	1265	♀ pelvis closed; nulliparous	Thomomys bottae	+ tissues	218-55-31-6 = 114 gm
	1266	♀ pelvis open, no emb.	Thomomys bottae	+ tissues	231-55-31-6 = 158 gm
	skull only 1267	♂ t = 4mm	Thomomys bottae	+ tissues	210-58-31-5 = 110 gm
	1268	♂ scrotal t = 18mm SV = 10mm	Thomomys bottae	+ tissues	240-57-32-7 = 198 gm

CATALOGUE

c.a. 4.0 mi. S La Joya, 4700', Socorro Co., New Mexico

May 14

scrotal t=16mm sv=7mm
1269 ♂ Thomomys bottae + tissues 240-52-31-6 = 210 gm

Cebolita Creek, 16.3 mi. S. Grants, Valencia Co., New Mexico, 6800ft.

17 May 1980

scrotal t=19mm sv=8mm
1270 ♂ Thomomys bottae + tissue 254-64-30-5 = 176 gm

pelvis open scars 2R-1L
1271 ♀ Thomomys bottae + tissue 215-57-29-5 = 112 gm

scrotal t=19mm sv=9mm
1272 ♂ Thomomys bottae + tissues 234-53-32-5 = 185 gm

scrotal t=19mm sv=5mm
1273 ♂ Thomomys bottae + tissues 235-55-30-5 = 148 gm
skull only

pelvis closed nulliparous
1274 ♀ Thomomys bottae + tissues 194-53-28-5 = 70 gm
skull only

nulliparous
1275 ♀ Thomomys bottae + tissues 202-52-28-5 = 90 gm

scrotal t=18mm sv=10mm
1276 ♂ Thomomys bottae + tissues 235-57-32-5 = 145 gm

scrotal t=20mm sv=10mm
1277 ♂ Thomomys bottae + tissues 232-57-31-5 = 150 gm

CATALOGUE

Gold Run Creek, 3 mi. S Susanville, Lassen Co., California, 4240 ft.

22 March

1278	emb 3R-3L CR=7mm ♀ Thomomys	+tissue	~~+tissue~~ 255-67-35-7	=197 grams

Gold Run Creek, 3 mi. S, ~~0.5 mi. W~~ Susanville, Lassen Co., California, 4320 ft.

23 March

1279	testes=14mm SV=3mm ♂ Thomomys	+tissue	223-67-30-5	=134 grams
1280	testes=14mm SV=5mm ♂ Thomomys	+tissue	240-78-33-5	=168 grams
1281	testes=15mm SV=6mm ♂ Thomomys	+tissue	267-86-30-6	=186 grams

Gold Run Creek, 3 mi. S, ~~0.5 mi. W~~ Susanville, Lassen Co., California, 4320 ft.

24 March

1282	nulliparous ♀ Thomomys	+tissue	195-57-28-5	= 107 grams
1283	testes=19mm SV=8mm ♂ Thomomys	+tissue	220-61-30-5	= 173 grams
1284	testes=15mm SV=4mm ♂ Thomomys	+tissue	203-60-28-5	= 94 grams
1285	pelvis notched ♀ Thomomys	+tissue	213-64-30-5	= 117 grams
1286	nuliparous ♀ Thomomys	+tissue	194-54-28-4	= 85 grams
1287	testes=16mm SV=8mm ♂ Thomomys	+tissue	240-66-33-6	= 184 grams
1288	testes=18mm SV=5mm ♂ Thomomys	+tissue	221-60-30-6	= 140 grams

25 March

1289	pelvis open ♀ Thomomys	+tissue	220-67-30-6	= 118 grams

CATALOGUE

Las Victorias, 4.2 km E Bariloche, Prov. Rio Negro, Argentina — Nov. 22

+tissues 1290	testes 11x6 mm ♂	Abrothrix xanthorhinus	149-55-20-15 = 12+ grams
+tissues 1291	no embryos, no uterine scars ♀	Eligmodontia morgani	155-64-20-15 = 16 grams
+tissues 1292	no emb ♀	Oligoryzomys longicaudatus	199-105-27-17 = 19 grams

Pampa Quemada, 12 km W Bariloche, Prov. Rio Negro, Argentina — Nov. 23

+ tissues 1293	testes = 7x5 mm ♂	Eligmodontia morgani	155-60-21-17 = 22 grams
+ tissues 1294	testes = 13x9 mm ♂	Abrothrix longipilis	189-74-25-16 = 39 grams
+ tissues 1295	testes = 12x9 mm ♂	Abrothrix longipilis	204-78-25-16 = 43 grams
+ tissues 1296	no embryos ♀	Auliscomys micropus	249-105-31-21 = 55 grams

road to Colonia Suiza, 15 km W Bariloche, Prov. Rio Negro, Argentina — Nov. 23

no tissues 1297	emb 2R-2L cR=3mm ♀	Oligoryzomys longicaudatus	200-105-26-17 = 21 grams

Nov. 24

+ tissues 1298	no emb ♀	Abrothrix olivaceus	190-77-22-15 = 26 grams
+ tissues 1299	testes = 12x8 mm ♂	Abrothrix olivaceus	175-71-23-15 = 26 grams
+ tissues 1300	no emb. ♀	Abrothrix olivaceus	158-56-21-15 = 20 grams
complete skeleton + tissues 1301	testes = 7x3 mm ♂	Oligoryzomys longicaudatus	224-114-28-18 = 40 grams
" + tissues 1302	testes = 6x4 mm ♂	" "	229-122-30-17 = 42 grams
" + tissues 1303	no emb. ♀	" "	197-109-27-16 = 23 grams
" + tissues 1304	testes = 6x3 mm ♂	Auliscomys micropus	177-76-25-18 = 27 grams
" + tissues 1305	no emb. ♀	Abrothrix longipilis	178-70-26-16 = 39 grams
" + tissues 1306	testes = 12x8 mm ♂	" "	185-74-26-16 = 42 grams
" + tissues 1307	testes = 11x7 mm ♂	" "	195-74-25-15 = 48 grams
" + tissues 1308	no emb. ♀	" "	181-70-24-15 = 40 grams

CATALOGUE

east knoll of Cerro Otto,
Prov. Rio Negro, Argentina

Nov. 25

+tissues 1309	no emb. ♀	Abrothrix xanthorhinus	151-65-20-15 = 18 grams

10 km S Comallo, 2900 ft. Prov. Rio Negro, Argentina

Nov. 25

+tissues 1310	testes = 12 x 7 mm ♂	Abrothrix xanthorhinus	149-59-20-16 = 21 grams
+tissues 1311	emb 3R-3L CR = 2mm ♀	Eligmodontia morgani	190-100-25-19 = 20 grams

Nov. 26

+tissues 1312	emb 2R-4L CR = 2mm ♂	Akodon sp.	148-49-22-13 = 18 grams
+tissues 1313	emb 3R-2L CR = 1mm ♀	" "	140-47-18-12 = 16 grams
skull only +tissues 1314	emb 3R-2L CR = 4mm ♀	Eligmodontia morgani	195-97-25-19 = 24 grams
skull only +tissues 1315	no emb ♀	Reithrodon auritus	177-64-31-20 = 28 grams
+tissues 1316	testes = 12 x 7 mm ♂	Abrothrix xanthorhinus	154-54-21-19 = 25 grams
skull only 1317	testes 9 x 4 mm ♂	Eligmodontia morgani	192-89-23-20 = 25 grams
skull only 1318	testes 9 x 6 mm ♂	Akodon	163-51-22-15 = 29 grams
skull only 1319	emb 5R-3L CR = 11 mm ♀	"	155-55-21-13 = 34 grams
skull only 1320	emb 3R-5L CR = 4mm ♀	"	149-50-21-14 = 24 grams

prepared Nov. 27 (animals kept alive in Shermans until then)

+tissues 1321	emb 2R-2L CR = 12mm ♀	Eligmodontia morgani	182-86-23-18 = 21 grams
+tissues 1322	no emb ♀	" "	187-90-25-18 = 25 grams
+tissues 1323	testes = 6 x 4 mm ♂	" "	187-94-23-18 = 20 grams
+tissues 1324	no emb. ♀	Phyllotis xanthopygus	256-120-30-29 = 58 grams
+tissues 1325	no emb. ♀	Reithrodon auritus	171-61-29-24 = 28 grams

Rio Castaño Overo, 44 km W Bariloche, 890 m, Prov. Rio Negro, Argentina

Nov. 28

+tissues 1326	testes = 11 mm ♂	Abrothrix olivaceus	175-78-22-17 = 22 grams

Smith, M.F.
1993

CATALOGUE

44 km W Bariloche, 890m,
Rio Castaño Overo, Prov. Rio Negro, Argentina

Nov. 29

+tissues 1327	no emb. ♀	Abrothrix olivaceus	180-74-23-18=33 grams
+tissues 1328	no emb. ♀	" "	160-70-23-16=19 grams
+tissues 1329	testes=13x8mm ♂	" "	200-88-25-16=28 grams
+tissues 1330	testes=10x6mm ♂	Geoxus valdivianus	155-50-22-12=30 grams

Lago Mascardi (west end), Prov. Rio Negro, Argentina

Nov. 30

+tissues 1331	testes 12x7mm ♂	Abrothrix olivaceus	185-80-24-16=29 grams
+tissues 1332	testes 12x8mm ♂	" "	185-76-23-17=33 grams
+tissues 1333	no emb. ♀	" "	189-83-23-17=30 grams
+tissues 1334	testes=12x7mm ♂	" "	185-80-24-17=30 grams

prepared Dec. 1 - animals kept alive in Shermans until today

+skull +tissues carcas in formalin 1335	testes 12x7mm ♂	Abrothrix olivaceus	194-80-24-17=34 grams

Hipodromo, 12 km WNW Bariloche, Prov. Rio Negro, Argentina

Dec. 2

+tissues 1336	juv. no emb. ♀	Abrothrix olivaceus	138-52-21-13=11 grams
+tissues 1337	testes=11x6mm ♂	" "	178-73-22-15=26 grams
+tissues 1338	testes 11x7mm ♂	" "	174-66-22-15=25 grams
formalin 1339	testes=7x4mm ♂	Oligoryzomys longicaudatus	216-110-27-16=25 grams
formalin 1340	emb 2R-2L CR=17mm ♀	" "	206-101-26-16=25 grams

Dec. 3

+tissues 1341	uterine scars ♀	Abrothrix olivaceus	167-64-22-16=23 grams
+tissues 1342	testes=10x6mm ♂	" "	161-67-22-16=23 grams
+tissues 1343	testes 11x6mm ♂	" "	187-77-24-18=31 grams

Las Victorias, 4.2 km E Bariloche, Prov. Rio Negro, Argentina

Dec. 4

embryos +tissues rozen 1344	emb 3R-2L CR=11mm ♀	Abrothrix xanthorhinus	142-56-20-15=22 grams

Smith, M.F.
1993

CATALOGUE

Las Victorias, 4.2 km E Bariloche, Prov. Rio Negro, Argentina

Dec. 4

5 embryos frozen	+ tissues 1345	♀ emb 1R-5L CR=13mm *Abrothrix xanthorhinus*	144-50-21-16 = 22 grams
	+ tissues 1346	♂ testes = 8x4 mm *Eligmodontia morgani*	164-70-23-17 = 22 grams
	+ tissues 1347	♂ testes = 11x6 mm *Abrothrix xanthorhinus*	153-59-19-16 = 22 grams
	+ tissues 1348	♀ no emb " "	157-61-19-16 = 20 grams

Dec. 5

5 embryos frozen	+ tissues 1349	♀ emb 2R-3L CR=16mm *Abrothrix xanthorhinus*	146-54-20-16 = 26 grams
	+ tissues 1350	♂ testes = 10x5 mm *Reithrodon auritus*	216-90-34-25 = 68 grams
	+ tissues 1351	♂ testes = 12x6 mm " "	222-92-34-25 = 73 grams
	+ tissues 1352	♀ emb 6R-0L CR=5mm *Abrothrix xanthorhinus*	144-52-21-15 = 17 grams
5 embryos frozen	+ tissues 1353	♀ emb 3R-2L CR=22mm " "	159-57-20-16 = 33 grams
	+ tissues 1354	♂ testes = 7x4 mm *Eligmodontia morgani*	157-70-23-15 = 15 grams

Estancia El Condor, 18 km SE Bariloche, 790 m., Prov. Rio Negro, Argentina

Dec. 6

+ tissues 1355	♀ emb 3R-2L CR=16mm *Abrothrix xanthorhinus*	154-58-20-15 = 32 grams
+ tissues 1356	♂ testes 10x6 mm " "	135-52-20-15 = 18 grams
+ tissues 1357	♀ perous " no emb. "	149-51-19-16 = 22 grams
+ tissues 1358	♂ testes 8x6 mm " "	125-48-20-16 = 11 grams

Smith, M.F.
1994

CATALOGUE

Arroyo El Renegado, 3 km E Pan de Azucar, Depto. Maldonado, Uruguay

Nov. 21

+skeletn CA 683	+tissues 1359	♂ emb 1R-2L CR=12mm **Scapteromys tumidus**	335-148-42-26=152gm

Las Flores, Depto. Maldonado, Uruguay

Nov. 22

+skeletn	+tissues 1360	♂ testes 12x7mm **Oxymycterus**	207+-60+-28-18=66gm
+skeletn orange	+tissues 1361	♂ testes 11x6mm "	202+-51+-27-16=82gm
+skeletn	+tissues 1362	♂ testes 12x7mm "	261-104-27-17=80gm

Punta Rasa, Depto. Maldonado, Uruguay

Nov. 22

fluid	+tissues 1363	♂ testes 9x5mm **Ctenomys pearsoni**	298-81-40-7=296 gm
fluid	+tissues 1364	♂ testes 5x2mm "	240-69-35-7=136 gm

Las Flores, Depto. Maldonado, Uruguay

Nov. 23

fluid	+tissues 1365	♂ testes 15x13mm **Cavia aperea**	278-0-46-27=390gm
	+tissues 1366	♂ testes 15x8mm **Scapteromys tumidus**	300+-113+-40-25=132 gm
in + in -in Uruguay	+tissues 1367	♀ emb 3R-3L CR=25mm "	334-147-41-25=164gm
alcohol	+tissues 1368	♀ emb 4R-2L CR=10mm "	345-158-42-25=138gm

Smith, M.F.
1994

CATALOGUE

Fundo San Martin, comuna San José, Provincia Valdivia, Chile

Dec. 8

+tissues 1369	testes 4x3 mm ♂ Abrothrix olivaceus	120-52-21-13 = 8.5 gm
+tissues 1370	no emb. uterus string like; lactating ♀ " "	177-80-24-17 = 25 gm
+tissues 1371	scars 2R-2L; lactating ♀ " "	168-74-22-15 = 23 gm
+tissues 1372	testes 12x8 mm ♂ " "	180-86-24-17 = 28.5 gm

Dec. 9

+tissues 1373	testes 11x7 mm ♂ Abrothrix olivaceus	188-83-24-17 = 34 gm
+tissues 1374	testes 14x8 mm ♂ " "	181-82-23-17 = 30 gm
+tissues 1375	no emb; uterus stringy ♀ " "	116-52-19-11 = 7 gm
+tissues 1376	testes 4x3 mm ♂ " "	125-60-21-14 = 10 gm

LOCALIDAD Arroyo El Renegado, 3 km E Pan de Azúcar, Depto. Maldonado.

COLECTOR M N Cortinas, F Hoffmann, M F Smith, L. Joseph, E. Lenz FECHA 21 / 11 / 94

Nº orig.	Sx	Pelo	W	LT	Dnegr / LC	PSU	PCU	Car	Formol	N2 liq. H	R	C	Alcohol	OBSERVACIONES	
680	♀	no embr no mam no pare testes	47g	187	15/82	22	26			L	C	V	Higado	en zona Cuinsch cerca del arroyo	Oxymycterus
681	♂	testes 15 x 8 mm	162	351	24/163	38	42	26	pene testes						sagitarius

LOCALIDAD Arroyo el Renegado, 3 km Pav. de Azucar - MALDONADO

COLECTOR MN Cortinas, F. Hoffmann, MF Smith, L. Joseph, E. Lessa FECHA 22/ II / 94

Nº orig.	Sx	~~Peso~~ Oreja	W	LT	LC	PSU	PCU	Car	Formol	N2 liq. H	N2 liq. R	N2 liq. C	Alcohol	OBSERVACIONES
682	♂	19		216	104	30	34	Si						Scapteromys
683	♀	26	152	335	148	38	42	Si						" = MFS 1359
684	♀	22	172	220	—	36	40	—						"CAVIA" 1 entrada - derecha 20 mm

LOCALIDAD Las Flores (*), Departamento de MALDONADO, (*) Margen W del Arroyo Tarariras

COLECTOR M.N. Cortinas, F. Hoffmann, M.F. Smith, E. Lenz, L. Joseph FECHA 23 III 94

Nº orig.	Sx	Pelo	W	LT	LC	PSU	PCU	Car	Formol	N2 liq. H	N2 liq. R	N2 liq. C	Alcohol	OBSERVACIONES
685	♂		75	230	16/85	24	28	–	Testículos Pene	✓	✓	✓	Hígado	testes 6x4 mm
686	♀		80	224	18/83	23	27	–						Embriones 2 lado izquierdo, 1 derecho + " ↳ Alcohol
687	♂		84	253	16/99	25	29	✓						testes 12×7 mm
688	♂		82	244	16/90	23	27	✓						testes 10×5 mm
689	♂		36	195	14/79	23	26	✓						
690	♂		66	224	17/75	23	28	✓						testes 12×6 mm

Oxyuris ceni
"
marcas de placentación.
"
"
"
"

LOCALIDAD Las Flores, margen W Arroyo Tarariras, Depto. Maldonado

COLECTOR H.N. Cortinas, F. Hoffmann, M.F. Smith, L. Joseph, E. Lenz FECHA 24/11/94

Nº orig.	Sx	Pelo	W	LT	LC	PSU	PCU	Car	Formol	N2 liq. H	N2 liq. R	N2 liq. C	Alcohol	OBSERVACIONES	
691	♂		26	180	15/76	20	21	X						Abiertos testículos	
692	♂		30	183	14/71	17	20	X						Muertos	Akodon
693	♂		26	202	16/89	28	31	X							Scapteromys juv.
694	♀		68	240	17/91	25	29	X							Oxymycterus
695	♀		49	205	20/81	25	28	X					embr.	vagina cerrada, 2 embr. 1 izq, 1 der	Oxymycterus
696	♂		38	195	16/76	24	27	X					pene, test		Oxymycterus
697	♀		44	197	16/75	23	26	X						vagina cerrada, no embr. no marcas placent.	Oxymycterus
698	♀		131	~~337~~ 337	24/139	36	41	X						vagina abierta 5 embriones 4 izq y 1 derecho 20 mm	scapt. → LT = 337
699	♂		159	344	23/141	37	42							test. 15x10 mm	orega = 23 Scapteromys
700	♀		41	234	23/100	34	36							vagina cerrada sin embriones sin marcas placentarias	Scapteromys juv.
701	♀		78	222	18/77	23	27	si					embriones	vag. abierta 4 embriones 2 izq + 2 der 33 cm	Oxymycterus
702	♂		33	175	16/62	21	22	Si							
~~703~~					16/97	20	22								
~~704~~				249											

LOCALIDAD Idém que anterior (Las Flores) margen W Arroyo Tacuarembó Depto. Maldonado.

COLECTOR M.V. Cortés, F. Hoffmann, M.F. Smith, L. Joseph, E. Lessa FECHA 24/11/94

	Nº orig.	Sx	Pelo	W	LT	LC	PSU	PCU	Car	Formol	N2 liq. H	R	C	Alcohol	OBSERVACIONES	
Kelvin	703	♂		32	194	15/82	20	22	4						test 10x7	
Rey	704	♂		24	249	16/97	20	24	4	Pata y test	4	4	4	Hígado	test 8x15	Oxyrhinus

Oxymycterus

more orange

CA ♀686 3 embr. TL 224
♂687 testes 12x7
♂690 " 12x6
♀694
♀701 4 embr.
♂704 testes 15x8
MFS ♂1361 testes 11x6

juveniles ~~juveline~~s (?)

CA ♂696
♀697 no embrs or scars
♂689

paler ventrally, less orange

MFS ♂1360 testes 12x7
♂1362 " 12x7

CA ♂685 " 6x4 mm
♂688 " 10x5 mm

Smaller gray/black base to hairs ventrally

CA 680 ♀ TL 187 no embrs or scars
695 ♀ 185 aspirsh. female (2 embrs)

CATALOGUE

Sycamore Canyon, Patagonia Mts., 11.4 mi E Highway 82, Santa Cruz Co., Arizona, 5940 ft.

8 April 1996

+ tissues 1377	t = 14 x 9 mm ♂	Thomomys umbrinus intermedius	182-50-25-5 = 77 grams

Sycamore Canyon, Patagonia Mts., 2.0 mi E Highway 82, Santa Cruz Co., Arizona 3696 ft.

8 April 1996

skin fragment only 1378			
+ tissues 1379	pelvis open ♀	Thomomys bottae modicus	228-62-31-7 = 147 grams
+ tissues 1380	pelvis open ♀	" " "	219-65-30-7 = 128 grams
+ tissues 1381	t = 16 x 10 mm ♂	" " "	248-80-34-7 = 148 grams
+ tissues 1382	pelvis open ♀	" " "	220-60-28-6 = 118 grams
+ tissues 1383	pelvis open ♀	" " "	213-70-29-6 = 100 grams
+ tissues + emb 1384	pelvis open cmb 1R-2L ♀	" " "	208-60-30-5 = 135 grams
+ tissues 1385	pelvis open ♀	" " "	210-63-29-6 = 125 grams

9 April 1996

1386	scrotal t = 21 x 15 mm ♂	Thomomys bottae modicus	209-65-32-7 = 136 grams
1387	pelvis open ♀	" " "	200-66-29-6 = 116 grams
1388	scrotal t = 19 x 13 mm ♂	" " "	223-71-31-5 = 130 grams
1389	pelvis open ♀	" " "	199-65-29-6 = 104 grams

Smith, M.F.
1996

CATALOGUE

Sycamore Canyon, Patagonia Mts., 5.0 mi. E Highway 82, Santa Cruz Co., Arizona, 4125 ft.

9 April 1996

+ tissues 1390	pelvis open ♀ ♀	Thomomys	bottae	modicus	203-60-27-5 = 98 grams
+ tissues 1391	pelvis open ♀ ♀	"	"	"	185-65-26-7 = 87 grams
+ tissues 1392	pelvis open ♀ ♀	"	"	"	222-67-28-6 = 113 grams
+ tissues 1393	scrotal t = 18 x 12 mm ♂	"	"	"	208-65-29-6 = 130 grams
+ tissues 1394	pelvis closed ♀ ♀	"	"	"	205-69-30-6 = 96 grams
+ tissues 1395	pelvis closed ♀ ♀	"	"	"	208-70-30-7 = 94 grams
+ tissues 1396	scrotal ♂	"	"	"	211-60-31-6 = 109 grams
+ tissues 1397	pelvis open ♀ ♀	"	"	"	200-66-27-6 = 90 grams
+ tissues 1398	scrotal t = 16 x 12 mm ♂	"	"	"	208-57-30-7 = 114 grams
+ tissues 1399	non scrotal t = 11 x 7 mm ♂	"	"	"	213-63-29-6 = 120 grams
+ tissues 1400	scrotal t = 14 x 10 mm ♂	"	"	"	215-66-30-7 = 112 grams
+ tissue 1401	pelvis open ♀ ♀	"	"	"	199-64-27-6 = 96 grams
+ tissue 1402	scrotal t = 20 x 11 mm ♂	"	"	"	217-68-30-6 = 123 grams

10 April 1996

+ tissues 1403	pelvis closed ♀ ♀	Thomomys	bottae	modicus	196-64-28-6 = 96 grams
+ tissues 1404	♀ juv. ♀	"	"	"	128-35-22-5 = 30 grams
+ tissues 1405	pelvis open ♀ ♀	"	"	"	210-67-29-7 = 102 grams
+ tissues 1406	scrotal t = 17 x 12 mm ♂	"	"	"	205-67-28-6 = 102 grams

Sycamore Canyon, Patagonia Mts., 6.2 mi. E Highway 82, Santa Cruz Co., Arizona 4389 ft.

10 April 1996

+tissues 1407	pelvis closed ♀	Thomomys bottae modicus	195-63-27-6 = 88 grams
+tissues 1408	pelvis open ♀	" " "	196-60-27-6 = 83 grams
+tissues 1409	scrotal t = 12x6 mm ♂	" " "	233-75-31-7 = 125 grams
+tissues 1410	scrotal t = 20x14 mm ♂	" " "	215-69-29-6 = 117 grams

11 April 1996

+tissue 1411	pelvis open ♀	Thomomys bottae modicus	204-64-27-6 = 100 grams
+tissues 1412	scrotal t = 17x12 mm ♂	" " "	217-60+-30-7 = 140 grams
+tissue 1413	pelvis open ♀	" " "	200-63-27-6 = 98 grams

Sycamore Canyon, Patagonia Mts., 9.5 mi. E Highway 82, Santa Cruz Co., Arizona 5148 ft.

11 April 1996

+tissue 1414	pelvis open ♀	Thomomys	183-59-27-5 = 74 grams
+tissues 1415	scrotal t = 12x10 mm ♂		185-55-26-5 = 95 grams
+tissues 1416	pelvis open ♀		175-61-23-5 = 66 grams

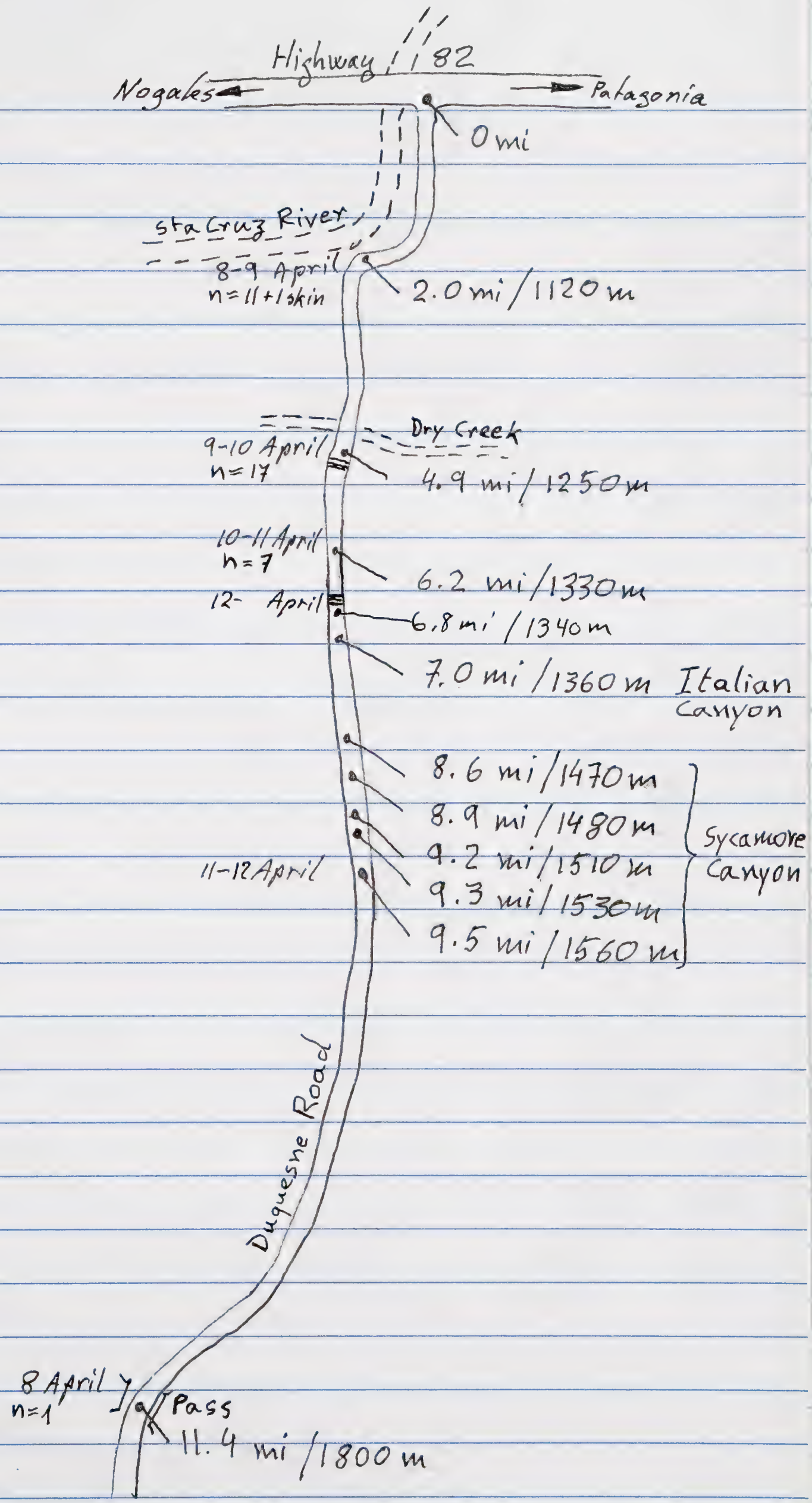
Sycamore Canyon, Patagonia Mts., 6.8 mi. E Highway 82, Santa Cruz Co., Arizona 4422 ft.

12 April 1996

+tissue 1417	pelvis closed ♀	Thomomys	204-60-29-7 = 101 grams
+tissues 1418	scrotal t = 17x13 mm ♂		224-71-32-7 = 133 grams

M.F. Smith

1996



M. F. Smith
1979-1996

Journal

1979-1980
New Mexico: Sierra, Socorro,
Valencia Cos.

M.F. Smith
1979

JOURNAL

5 mi. S, 2.7 mi. W Truth or Consequences, 4300', Sierra Co., New Mexico

Aug. 29 Flew from San Francisco to Albuquerque, New Mexico, on Tuesday evening, Aug. 28. John and Dave Hafner met me at the airport. Stayed overnight at Dave and Diane's in Albuquerque. John Hafner, Dave Hafner, and I left Albuquerque on Wednesday morning and drove south on Highway 25 on the west side of the Rio Grande River. Our purpose is to collect samples of *Thomomys bottae* in the zone of contact between the northern type, represented by *T. b. connectens* from Albuquerque and Bernardo, and *T. b. opulentis*, the southern type, from San Marcial and Radium Springs. We decided to collect another reference sample from near Truth or Consequences.

Got off the highway at the Cuchillo exit and drove east to Elephant Butte, then south west to Truth or Consequences looking for gopher mounds. Drove south from Truth or Consequences on old highway 85 and stopped at Las Palomas to look for mounds in the alfalfa fields. Las Palomas is not a very big town, and there were just a few houses in sight where we stopped. We saw a few mound, then John talked to the rancher and he led us to the other end of the fields, where there was more gopher activity. By late afternoon we had trapped 16 gophers; 6 of these were alive and we kept them in

M.F. Smith
1979

JOURNAL

5 mi. S, 2.7 mi. W Truth or Consequences, 4300', Sierra Co., New Mexico

Aug. 29 live traps to be karyotyped later. We drove north to camp at Springtime Canyon campground in Nogal Canyon in the San Mateo Mts. north and west of Truth or Consequences in the Cibola Nat'l. Forest. There is a cattle tank near the campsite which has a wide diversity of bats visiting it at night. However, we didn't have time to net bats because we still had animals to stuff. Dave cooked beans which we had late in the evening.

1 mi. N, 1 mi. W San Marcial, 4700 ft., Socorro Co., New Mexico

Aug. 30 We drove north to the San Marcial turnoff and drove along a dirt road to San Marcial, which again is just a collection of a few houses. We saw very little activity right next to the river so we headed back west along the dirt road again. We did find some places to set traps in the creosote bush desert. Set all along the road between San Marcial and the Highway. Eventually we caught 6 animals, 2 of which stayed alive until we got back to Albuquerque to do the karyotyping.

San Antonio, 4550 ft., Socorro Co., New Mexico

Aug. 30 Drove north along the highway to San Antonio, on the north side of the Bosque del Apache Nat'l. Wildlife Refuge. There used

M.F. Smith
1979

JOURNAL

San Antonio, 4550 ft., Socorro Co., New Mexico

Aug. 30 to be much more marsh land along the river before dams and other flood control activity along the Rio Grande. At San Antonio we parked in the shade of the old railroad station building. I processed the dead animals from San Marcial while John and Dave set traps along the railroad tracks and at the edge of some fields. Checked the traps a couple times, then went to the Owl Cafe for green chile cheeseburgers. Went back and checked the traps in the dark, and there were several animals. Then drove east on highway 380 and north on a side road on BLM land to camp and process the animals from the night check at San Antonio. Bright flashes of lightning to the north and east.

Aug. 31 Pulled the traps at San Antonio in the morning, getting a couple more gophers. A total of 11 animals from San Antonio, 3 of which were alive when we got to Albuquerque to do the karyotyping.

Socorro, 4550 ft, Socorro Co., New Mexico

Aug. 31 Drove north to Socorro, and stopped on the south east edge of town along the railroad tracks. Saw a little activity there, then John talked to a rancher who said he had

M.F. Smith
1979

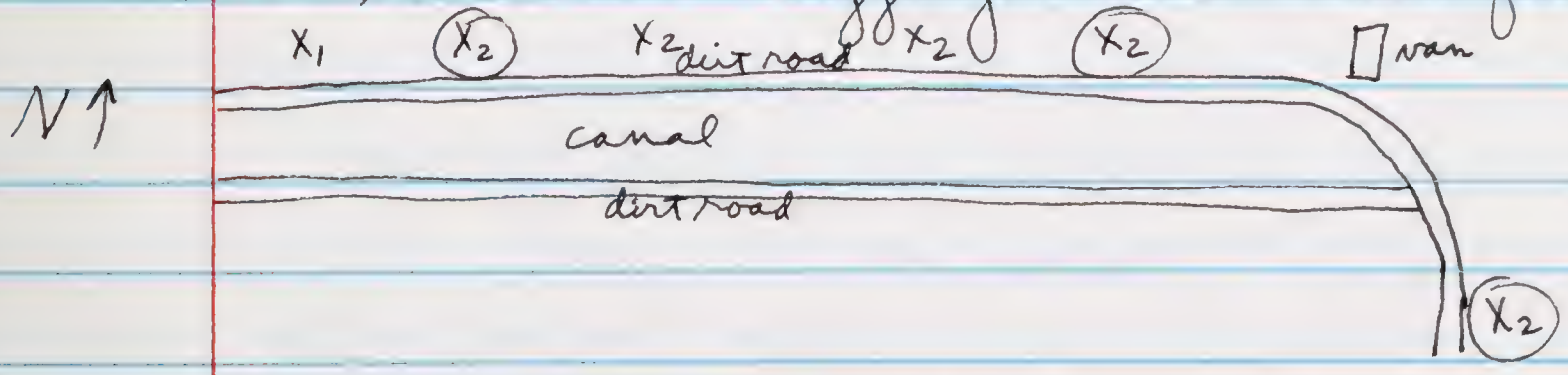
JOURNAL

Socorro, 4550 ft., Socorro Co., New Mexico

Aug. 31 many gophers in his fields. He had a very big operation. We drove past several corn fields, then finally found some allfalfa fields right next to the river. John set along the edge of the field and Dave and I set along an irrigation canal parallel to the river. Caught several dead animals, then finally got some live ones for karyotyping. Total of 15 animals for Socorro, 5 of which we later karyotyped.

San Acacia, 4700 ft., Socorro Co., New Mexico

Aug. 31 Drove north to San Acacia. Saw some good looking fields on the east side of the highway, west of the railroad tracks. John talked to the rancher and again he said to take all the gophers we wanted, I set along the edge of an alfalfa field. This was the easiest digging I had had so far.



I caught 3 animals out of my 6 sets. Altogether we got 10 animals, 2 karyotyped. Finished processing these animals after dark. Got back to Albuquerque around 11 PM.

M.F. Smith
1979

JOURNAL

Albuquerque, New Mexico.

Sept. 1 Went in to the University of New Mexico to karyotype the 18 live gophers. Also took tissue, stained the slides and left them to dry overnight. Went back to Dave's house to skin animals.

Sept. 2 Finished skinning the rest of the animals and I wrote up my journal.

M.F. Smith
1980

JOURNAL

3 mi. S La Joya, 4700', Socorro Co., New Mexico

May 11 Flew from San Francisco to Albuquerque, New Mexico on Saturday evening, May 10. Jim and Carol Patton and Dave Hafner met me at the airport. We stayed overnight at Dave and Diane's in Albuquerque. Left on Sunday morning to drive south to La Joya. The purpose of this trip is to follow up on the contact zone located by John and Dave Hafner and me in August-September, 1979. The contact is about 50 miles south of Albuquerque along the Rio Grande between La Joya (Thomomys bottae connectens) and San Acacia (Thomomys bottae opulentis). T.b. connectens has no acrocentric chromosomes, T.b. opulentis has ~15 pairs of acrocentrics. The subspecies are also differentiated genetically (allozymically). We will take tissues from all animals and karyotype any that are caught alive.

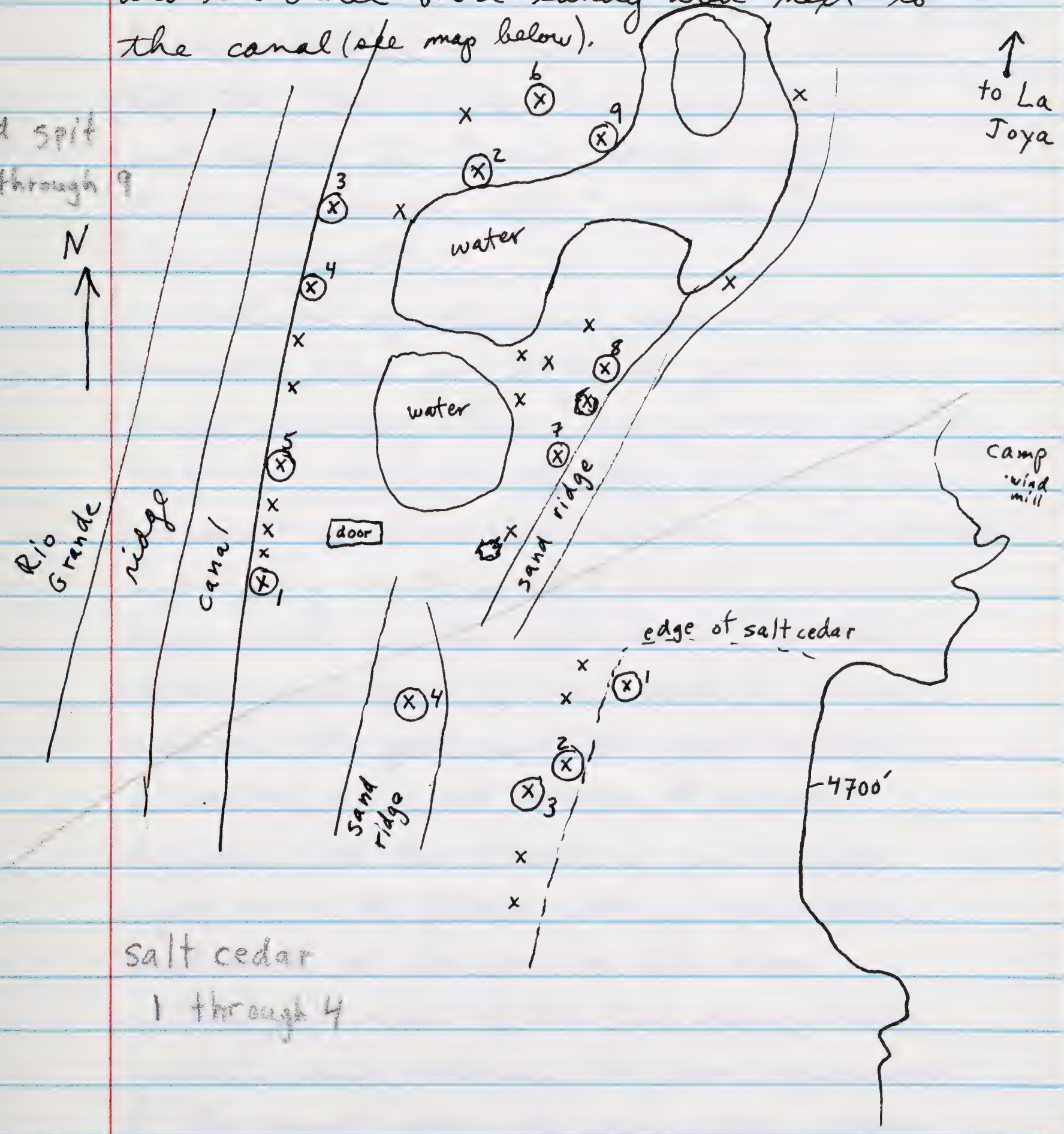
Got off the highway at the La Joya exit. Drove through La Joya and south along a dirt road past one windmill and camped at near the second windmill. Split up to set out traps. Jim and Carol went north along a canal about 2 miles and then south on the other side of the canal about 2 miles. Dave and I went south from the camp. I set my traps out

M.F. Smith
1980

JOURNAL

3 mi. S La Joya, 4700', Socorro Co., New Mexico

May 11 towards the river from a bluff with a contour of 4700'. My traps were concentrated in two small areas, one area with salt cedar and the other on a sandy area next to the canal (see map below).



M.F. Smith
1980

JOURNAL

3 mi. S La Joya, 4700', Socorro Co., New Mexico

May 11 Checked the traps several times during the afternoon and reset any that had caught animals. Took tissues from dead animals and saved the live ones for karyotyping. Discovered that the inverter didn't work, so left the blood on ice to be spun later; put tissues in liquid nitrogen. After dark skinned and stuffed animals. Finished at about midnight.

May 12 I checked my traps and processed the new animals. Then went back and pulled all my traps, including those just set this morning. Walked south with my traps planning to set south of Dave's area towards the constriction. Kept going south until I finally ran into Dave right at the constriction. He had already set most of the available mounds between the gate and the constriction. I walked on a bit farther to see what happens. The Rio Grande is quite high right now. It flows right up against the east bank at the bend in the river, cutting out most of the flat areas where gophers would ordinarily be most numerous. At the constriction the river comes within a few meters of rocky hillsides with no apparent sign of gophers. I followed the gravel

M.F. Smith
1980

JOURNAL

3 mi. S La Joya, 4700', Socorro Co., New Mexico

May 12 road which is right next to the river at this point. A short ways further (~200 meters?) there was one pocket of flat land with some old gopher mounds. North-south movement along the river is probably very restricted here; certainly it is so during periods of high water. Looking across the river it looks like there is more habitat available at the bend on the west side of the river. We will try to sample that area later.

On the way back to camp Dave and I set a few more traps and Dave caught a couple animals as well. Got back to camp thirsty and tired and eventually located the cache of supplies Jim and Carol had left for us. They returned shortly with the car. New fuses had not solved the problem with the inverter so they had run the centrifuge off an extension cord at a house in La Joya. We processed, skinned, and stuffed animals. Finished about 9 pm.

May 13 After coffee in the morning Dave went down to bring in his traps and Jim went to get some pictures of the topography of the constriction.

M.F. Smith
1980

JOURNAL

3.5 mi. S La Joya, west side of Rio Grande, 4700 ft., Socorro Co., New Mexico

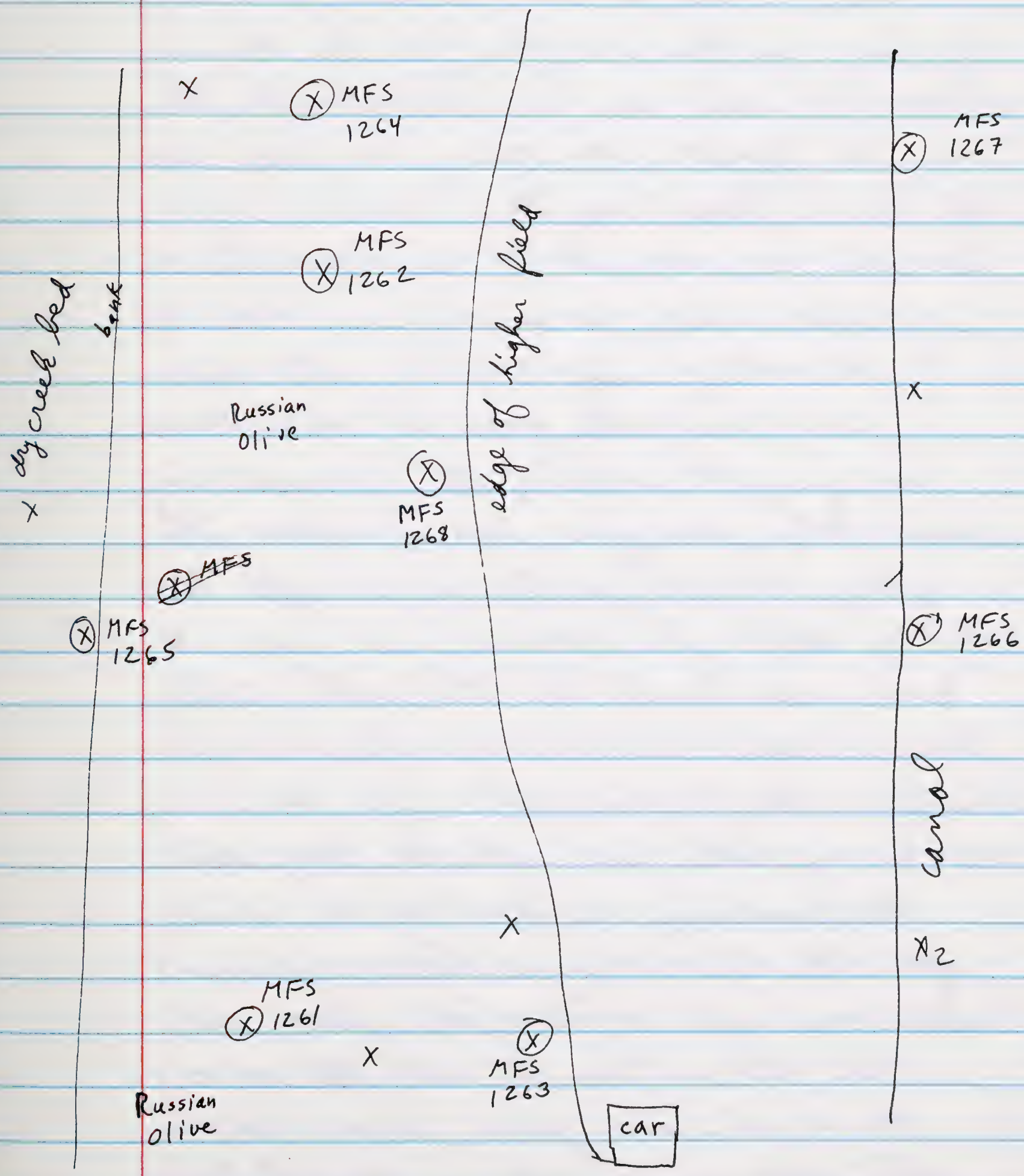
May 13 Drove to the La Joya Game Refuge headquarters and spun the blood. Got a key to drive into the road along the canal on the west side of the Rio Grande. The gate had about seven different locks on the chain because many different government agencies need to have access to the area. Drove south as far as the railroad bridge where the Rio Salado enters the Rio Grande. Walked down to the river and examined the adjacent habitat, but found no sign of any gophers here. This appears to be an inhospitable area which would form a barrier to gopher movement. Drove back north along the canal road until we found fields with gopher sign. The animals were present in pockets in the area I worked, and were abundant along the canal bank, within a meter of the water in many places. By evening we had a large sample so we pulled the traps and finished processing, skinning, and stuffing. See map next page for location of my traps.

M. F. Smith
1980

JOURNAL

3.5 mi. S La Joya, west side of Rio Grande, 4700 ft., Socorro Co., New Mexico

May 13



M.F. Smith
1980

JOURNAL

c.a. 4 mi. S La Joya, 4700 ft., Socorro Co., New Mexico

May 14 Drove back to the refuge headquarters to spin the blood samples and consulted with the staff person there. He said it would be possible to drive along the ~~west~~ east side of the Rio Grande if we went down to Escondida and took the gravel road through the game refuge. He gave us the combination for the lock at the entrance to this area. We were able to drive up as far as our previous locality where Dave had set traps right at the constriction. Set along the gravel road just south of the previous trapping area. The mosquitos were very bad. After checking the traps a few times we drove along the river and across a big stretch of salt flats. Passed the San Acacia dam and drove on down the road but saw no good places to trap. Drove back to the cottonwood trees near the dam and Dave found one mound to set while we processed the animals we had caught earlier that day. Dave then took a bag of traps and walked across the dam to set in the field at San Acacia where John, Dave, and I had trapped in Aug.-Sept. of 1979. The rest of us drove back to bring in the traps from the 4 mi. S of La Joya site,

M.F. Smith
1980

JOURNAL

c.a. 4 mi. S La Joya, 4700 ft., Socorro Co., New Mexico

stopping along the road to set a trap in the fresh mound we had seen in the road just north of the dam. Looked around in the vicinity of that mound and found one more spot towards the river about 10 meters, plus another set in the road. Proceeded on to the site 4 mi. S of La Joya and pulled the traps. Dave's traps had two more animals (total 3 animals out of 4 sets at this site). I caught 1 animal out of 4 traps. Jim and Carol had more sets out and caught several animals. Drove back to San Acacia dam to set up camp. Processed and skinned and stuffed animals. Dave got back from the ranch across the river after dark. ~~Ht~~ We processed and skinned and stuffed the 10 animals he had caught already in the field at San Acacia.

May 15 Dave was up early and brought in the animal from the east side of the river south of San Acacia dam. Jim caught an animal just north of the dam on the east side. Dave returned with 7 more animals from the field at San Acacia. Finished those animals and broke camp. Got 2 animals out of 3 sets at the site right next to the road. Very dark clouds were building up so we were glad to be heading back towards the main highway.

M. F. Smith
1980

JOURNAL

Escondida, 4600 ft., Socorro Co., New Mexico

May 15 We stopped at an alfalfa field in Escondida on the east side of the river and got permission to trap there. Caught 8 animals but it started to rain and activity was way down so we pulled the traps. Took tissues from the 7 dead animals before heading north for Albuquerque.

Dropped Dave at his house, Mark and Darcy Hafner had already arrived there. They are on their way to Berkeley. We checked into a motel and spun the blood samples and skinned and stuffed the remaining animals. Got cleaned up and went over to Dave's for dinner and a chat with the Hafner clan.

Albuquerque, New Mexico

May 16 Jim karyotyped the live animals in the motel room while Carol and I did errands and the laundry. We got an inverter at Radio Shack for ~ $80 to replace the defective one. This price is probably better than Sears or Wards.

Cabolita Creek, 16.3 mi. S. Grants, Valencia Co., New Mexico, 6800 ft.

May 17 Drove west from Albuquerque on route 66. Got off at the Quemado exit and south on 117, which is a two lane, paved highway.

M.F. Smith
1980

JOURNAL

Cebolita Creek, 16.3 mi. S Grants, Valencia Co., New Mexico, 6800 ft.

May 17 Set up camp in a pretty spot in open fields between the lava flow and rocky cliffs, in scattered junipers. A rancher told us that the cattle had just been moved out of the field that day. We need a sample of T.b. collis from this area. This subspecies is probably related to T.b. connectens from the Albuquerque area, whereas the subspecies on the west side of the lava flow, T.b. morulus, is probably very closely related to or the same as T.b. fulvus.

Evidence of gopher activity in this area is mostly small plugs. I had difficulty locating fresh digging in my area. I got 4 animals out of the 12 sets I put out. Jim and Carol got 23 animals. Then we pulled the Macabees, but they did put out some live traps to get animals for DNA analysis (C value). We finished processing, skinning, stuffing, and spinning the blood at about 9:30 pm. It was quite cold and windy.

May 18 New pocket gophers from the vicinity of Mount Taylor, New Mexico by E.T. Hooper 1940
Occ. Papers of the Museum of Zool. Univ. Michigan #422

Mammals of the lava fields and adjoining areas in Valencia County, New Mexico E.T. Hooper 1941 Misc. Publ. Mus. Zool. Univ. Mich. #51

M.F. Smith
1980

JOURNAL

Albuquerque, New Mexico

May 18 Pulled in the live traps by midmorning. Drove down another mile or so to see the rock arch that a local rancher had told us about. If the animals on the two sides of the lava flow differ karyotypically and genetically as we expect, then there would be potential contact between the two forms around the southern end of the lava flow, or across the narrower parts near Grants. We drove back to Albuquerque and Jim and Carol dropped me at the airport for my flight at 2:45 PM.

Karyotypes ↙ Electrophoresis

Truth or Consequences (N=16) electrophoresis (N=6) karyotypes

MFS	1233 (17)	1234 (18) ✓	1229	1230	1231	1232	1233	1234
DJH	1745 (15)	1746 (16) ✓	1742	1743	1744	1745	1746	
JCH	1539 (13)	1540 (14) ✓	1536	1537	1538	1539	1540	

San Marcial (N=6) electrophoresis (N=2) karyotypes

MFS			1235	1236
DJH	1748 ✓		1747	1748
JCH	1541 ✓		1541	1542

San Antonio (N=11) electrophoresis (N=3) karyotypes

MFS	1239 ✓	7	1237	1238	1239	
DJH	1752 ✓	6	1749	1750	1751	1752
JCH	1545 ✓	5	1543	1544	1545	1546

Socorro (N=15) electrophoresis (N=5) karyotypes

MFS	1243 (11)	1244 (12) ✓	1240	1241	1242	1243	1244
DJH	1757 (10) ✓		1753	1754	1755	1756	1757
JCH	1550 (8)	1551 (9) ✓	1547	1548	1549	1550	1551

San ~~Antonio~~ Acacia (N=10) electrophoresis (N=2) karyotypes

MFS			1245	1246	1247	
DJH	1761 ✓	4	1758	1759	1760	1761
JCH	1554 ✓	3	1552	1553	1554	

M. F. Smith
1979-1996

Journal

1981-1982
Calif: Yolo, Place, Calaveras,
San Joaquin, Lassen Cos.

M.F. Smith
1981

JOURNAL

0.5 mi. N Madison, Yolo Co., California

Dec. 12 I met Jim and Carol Patton at MVZ about 8:45 am. We will head north first, then plan to trap along the foothills for *Thomomys bottae*. Drove north, east on 80, north on 505, then west on highway 16 to Madison. Set out traps along the edge of a field with turnips or sugar beets. The clay soil was very sticky - it quickly covered our boots and pants. I caught 2 gophers out of 11 sets. We caught a total of 11 animals. One was kept alive to get spleen cells after we got to the motel. We finished processing about 7:30 pm and had dinner.

3 mi. E. and 1 mi. S Lincoln, Placer Co., California, 500 ft.

Dec. 13 After breakfast we drove towards Auburn. Checked along the roads for signs of gophers. Nothing around Newcastle or Penryn, but finally saw some mounds in the field of a ranch on Sierra College Blvd. east of Lincoln. Set out all the traps and checked them a couple times before going into Lincoln for lunch. Again a drizzly day, very slow gopher activity even though there are lots of mounds.

Activity picked up late in the afternoon. We caught a total of 22 gophers, keeping three

M.F. Smith
1981

JOURNAL

3 mi. E, and 1 mi. S. Lincoln, Placer Co., California, 500 ft.

Dec. 13 alive for spleen cells. Left the area around 5:00 pm. Drove through Auburn to Placerville and found a motel. Processed the blood and put up nineteen animals, then had dinner. After dinner did the three live animals. Got to bed about 11:15 pm.

1.5 mi. N Plymouth, Amador Co., California, 950 ft.

Dec. 14 After breakfast we drove south on highway 49 from Placerville. Stopped at a ranch right along the road and got permission to trap. Looked like a lot of activity but not much after we got the traps out. By 2:30 pm we had 12 animals. Got 16 altogether, one alive for spleen cells. Drove to Jackson to get a motel. Finished processing blood and stuffing animals by about 7:00 pm. Went out for dinner, then did the one live animal.

2.5 mi NW Angels Camp, Calaveras Co., California, 1200 ft.

Dec. 15 Left Jackson about 8:30 am. Drove south on highway 49 towards Altaville and Angel's Camp. Stopped at one house but the woman there said we would have to ask her husband for permission. Couldn't find him so drove down a side road, Cosgrave Rd. to the end and got permission to trap in the fields there. Again a slow day, although we got 6 animals here. We got fourteen altogether, with 3 alive.

M.F. Smith
1981

JOURNAL

2.5 mi. NW Angels Camp, Calaveras Co., California, 1200 ft.

Dec. 15 We were finishing as it got dark. Got a motel in Angels Camp. Processed the blood, the live animals, and finished skinning. Then went into town for dinner.

2.7 mi. N. Farmington, San Joaquin Co., California, 400 ft.

Dec. 16 It was clear in Angels Camp in the morning but foggy as we drove down into the Valley on highway 4. Found some good fields north of Farmington. Had the traps out before 11:00 am. Again slow at first. Finished up in the dark, but did get 17 gophers here. We did not save any of the live animals for spleen cells from this locality. Drove to Pleasanton and processed the blood and skinned the animals at my house. Jim and Carol stayed overnight with us and then they set out on Thursday morning to do some more trapping. All of the gophers from this trip have Jim's field numbers.

M. F. Smith
1982

JOURNAL

Susanville, Lassen Co. California

Mar. 21 Maria Gloria Basañez and I took the Trailways bus from Oakland to Sparks, Nevada. Met Jim and Carol Patton at the Nugget in Sparks and drove from there to Susanville. We plan to collect in the zone of contact between *Thomomys bottae pascalis* and *Thomomys townsendii relictus* in the area around Gold Run Creek.

Mar. 22 Gold Run Creek, 3 mi. S Susanville, Lassen Co., California, 4240 ft.

Drove out from Susanville to get permission to trap in the contact area. Stopped at a house on Richmond Rd. and found out the owner of the property lived farther on so drove to their place - Hoppy Valley Ranch, owned by the Nagel family. Got permission to trap and a key to the gate on the dirt road leading into the property. The dirt road shows on the topo map (~~Eat~~ Diamond Mtn. Quadrangle 7.5 minute series) just south of Gold Run Road, leading off of Richmond Rd. past Nagel Reservoir. Parked the van at a large shelter for hay bales and split up to set traps. Carol and I set between the van and the road, Jim and Maria Gloria set farther up the creek. Jim Nagel came by in the afternoon and I rode with him to see another possible field to set in next to Nagel Reservoir. He also got permission for us to trap the neighbor's field on the other side

M.F. Smith
1982

JOURNAL

Gold Run Creek, 3 mi. S Susanville, Lassen Co., California, 42404.

Mar. 22 of Richmond Rd. We caught 20 gophers today. (7 females, 3 of them with embryos which we saved; 13 males). Got back to the motel and processed animals, with a break for dinner. Finished about 11:30 pm. We saved plasma only from the blood since we don't need the Est-1 locus from hemolysate — some of the alleles for that locus are too slow to score accurately because of interference from another locus.

Mar. 23 Checked holes that were left open yesterday and reset any that had been plugged. Only one set of plugged holes in the lower field I set yesterday. Then I went up to set the field next to Nagel's Reservoir. Set out ten sets. No animals so went back to have lunch about 1:00 pm. Finally caught three animals from that field. Left holes open overnight. The other had caught 22 animals, so we got a total of 25 for today. Jim and Carol caught several in the field on the other side of Richmond Rd. We finished skinning about 12:30 am.

Mar. 24 Gold Run Creek, 3 mi. S, 0.5 mi W Susanville, Lassen Co., Calif., 43204.

This is the locality for the three animals I caught in the field next to Nagel's Reservoir. This morning we dropped Carol and Maria Flora off at the fields across the road from Nagel's

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Gold Run Creek, 3 mi. S, 0.5 mi. W Susanville, Lassen Co, California, 4320 ft

Mar. 24 property. Then Jim drove up to drop me off at Nagel's Reservoir and he went back down to work the remaining lines in between. Of the fifteen holes I left open overnight eight were plugged. I reset those as well as two fresh mounds in the field. Then I set the mounds at the base of the bank holding in the reservoir. I caught two dead animals early in the afternoon, and two live animals at about 3:00 pm. I walked back down to the car to process those four animals. At about 5:30 pm Jim and I drove back up to Nagel's Reservoir. I had three more animals. The remaining holes Jim set with live traps so they could be left open overnight. Much of the activity in this field seems to be at night or in the early morning. On the way back down we checked Jim's traps. We caught a total of ~~27~~ 31 gophers today (three still alive to take back).

Mar. 25 Caught one animal in a live trap in the field next to Nagel's Reservoir. Reset those that had been plugged overnight. Carol and Maria Gloria were looking for mounds in the fields west and south of Nagel's Reservoir. I followed the road around and found a wire fence that would prevent us from driving across

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Gold Run Creek, 3 mi. S Susanville, Lassen Co., California, 4240 ft.

Mar. 25 to the other side of Gold Run Creek from this direction, Jim arrived at the fence with the van and we decided to pick up the others and drive the long way around to the other side. We got permission at the Sella ranch but found very little gopher sign — mostly ground squirrels. Jim and I each set out three sets. Dropped Carol off at the motel and went back to Nagel's Reservoir. Set several fresh mounds and caught six more animals on the area before pulling traps at ~4:00 pm. Then drove over to the other side to pull the remaining traps. Jim caught one gopher at Sellas. I had walked across the creek on the dirt road above Nagel's and set three traps just on the other side of Gold Run Creek. I caught one gopher there. Went back to the motel and processed the seven animals (plus one kept alive). Since there was very little activity in the fields on the north side of the creek we decided we had collected everything we could in the contact zone. Jim decided to use one general locality for all the samples, with individual captures plotted on the topo sheet. My locality for the field next to Nagel's Reservoir will have to be changed.

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JOURNAL

Gold Run Creek, 3 mi. S Susanville, Lassen Co., California, 4240 ft.

Mar. 26 Packed up in the morning and headed west on Highway 36 over the mountains. It was snowing at the higher parts of this route. We had hoped to trap near Red Bluff but the van had an engine problem so we came directly back to the Bay Area.

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1979-1996

Journal

1993

Uruguay: Depto. Maldonado

Argentina: Prov. Rio Negro

M.F. Smith
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Montevideo, Uruguay

Nov. 16 Left San Francisco at 1:40pm on Saturday, Nov. 13, and arrived in Montevideo around 3:00pm on Sunday, Nov. 14. The time in Montevideo is five hours later than in California. I was met at the airport by Enrique Lessa and Joe Cook. Joe is here for four months on a Fulbright to work with Enrique. On Monday I talked with some of Enrique's students and several biologists at the Facultad de Ciencias, where Enrique has a position. On Tuesday I gave a talk in the morning about species boundaries — paraphyly/polyphyly in Thomomys. Later we continued our work gathering up supplies for a field trip, stringing the Museum special traps I brought for Enrique, and trying to figure out logistics.

Nov. 18 El Peñasco, ~5 km N of Maldonado, Depto. Maldonado, Uruguay

The original plan was to take a bus to Maldonado on Wednesday afternoon. However, there was a big storm on Tuesday night, with many trees blown down in Montevideo, and heavy rains, continuing on Wednesday. Enrique thought it would be better to wait until Thursday morning to leave for the field. On Wednesday afternoon Guillermo

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El Peñasco, ~5km N of Maldonado, Depto. Maldonado, Uruguay

Nov. 18 and I were driven by Tito in the Nissan that belongs to the department to buy dry ice at an ice cream factory (about $30,00 US for a small piece ≈ 30 kilos). We also filled one of the 10 liter liquid nitrogen tanks at the Casa de Inseminario, which cost about $25 US. I stayed at Enrique's house on Wednesday night since I had already checked out of the hotel in preparation for the field trip. Joe Cook rented a car and moved his family and visiting relatives to the beach house at Alguna, leaving room for me at Enrique's house.

On Thursday morning Tito picked us up at Enrique's house in the departmental vehicle. Two of the students rode along in the vehicle, and three took the bus that same morning to Maldonado. We drove to El Peñasco, the house belonging to the grandfather of Maria Luz, and dragged off our personal gear to make room in the vehicle. The house was enormous, with large grounds, fruit orchards, trout raising ponds, and a view of the Arroyo Maldonado.

We picked up the students at the bus station in Maldonado and drove east

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El Peñasco, ~5 km N of Maldonado, Depto. Maldonado, Uruguay

Nov. 18 along the coast towards San Ignacio looking for mounds of tuco tucos (*Ctenomys pearsoni*) in the sandy dunes along the coast. We set a few Macabee traps east of the mouth of the Laguna San Ignacio, then drove north and located a farm with tucos about 5 km N of the lighthouse of San Ignacio. Here we found quite a few tuco mounds in one pasture, and Enrique and some students also set traps in the owner's lawn. In the field we found the skin of an armadillo; and also an anglisbean in a *Ctenomys* burrow. After we finished at the farm we also set some traps about 7 km farther north. We caught 11 *Ctenomys* during this day, in spite of the rain and wind.

We drove back to the house in the late afternoon. We split into two groups to set traps for sigmodontines. We had 100 Museum special snap traps and 50 wire cage live traps on loan from a local group, one of whom was along on the field trip. One group set traps in a

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El Penasco, ~5 km N of Maldonado, Dept. Maldonado, Uruguay

Nov. 18 rocky ~~the~~ area and along the edge of a field, working downhill from the house. The other group walked to the end of the driveway and set 10 traps in the bushes at the entrance, and the rest across the road between the abandoned railroad tracks and the edge of a pasture, a strip about 10 meters wide; there was a raised strip with water along the low edge. We checked the traps at about 11:00 pm. One animal in a snap trap in the bushes at the end of the drive. It looked like Mus to me, but it needs to be identified. We had no keys to go on there, and the collection had been locked when I had tried to look at it at the Facultad.

We ate dinner around midnight. Tito had cooked a delicious stew. Finished processing animals around 2 am. For the Ctenomys Enrique's group is karyotyping, taking tissues, and making skins and complete skeletons. For any cricetines (sigmodontines) we are taking tissues to split between Enrique's collection and the other half to be a permanent loan to MVZ.

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El Peñasco, ~5 km N of Maldonado, Depto. Maldonado, Uruguay

Nov. 19 Enrique, Joe, and I were the first ones up. Had Tea and a roll, then went to check the traps. Enrique checked the lines he had set with the student near the house, and Joe, Guillermo, and I checked those near the railroad tracks. Near the tracks we got three more animals. These have a long pointed snout and may be Oxymycterus. One appeared to be larger, two smaller, one of which may be a juvenile. All 4 animals caught during the night were in snap traps rather than in the wire cage live traps. Many of the snap traps were set off, either by the rain or other activity. All of the snap traps were new ones that had never been used before. We also had 8 Victor rat traps, which didn't catch anything.

We split the group, with most people bagging Ctenomys that had been injected with yeast the previous day, and also taking tissue and skinning the cricetines. Enrique, Federico and I drove out with Tito to trap more Ctenomys. We drove along a more inland road to see if there were animals there, but didn't see any way far inland.

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El Peñasco, ~5 km N of Maldonado, Depto. Maldonado, Uruguay

Nov. 19 We set traps for tucos in the vicinity of 1 km W of the mouth of the Laguna de Rocha, in Depto. Rocha. The first field we set in was very much like trapping Thomomys in the US, although with very sandy soil. The mounds are similar, as is the construction of the burrows and the method of setting the traps. Additional sites were closer to the ocean next to sand dunes.

The weather was much better on this day. We saw lots of birds near the Laguna de Rocha, including jacanas, capuchin gulls, + black necked swans. Lots of migratory birds come to the lagoons and marshes in this area. We also saw 3 Rhea americana in a field during the day. Driving back to the house we saw nutria near the edge of a pond, and Cavia running across the road. The Cavia are very dark in color, somewhat larger than Ctenomys. There were many of them running across the road and along the edge of the road in the grass.

When we got back to the house we packed up as quickly as possible because we

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El Peñasco, ~5 km N of Maldonado, Depto. Maldonado, Uruguay

Nov. 19 were supposed to get back to the Facultad by 10 p.m. Some people are staying another night at the house, and they set the 50 snap traps and 8 Victor traps that I brought to Enrique, so they may catch some more mice after we leave.

The members of the field party included Joe Cook from the University of Alaska, Enrique Lessa, Guillermo D'Elia (a masters student of Enrique's), Mariana Cosse, Federico Hoffman, and Ana Luz Porzecanski, who are undergraduate students at the Facultad, and Gustavo , who belongs to a local group that is interested in collecting mammals. Noel Cortina, Enrique's other masters student at the moment, was unable to go on the trip.

On the way back we got to the outskirts of Montevideo at 10 p.m. They called the Facultad to be sure someone would be there to open the gate, which is locked at 10 p.m. No one was there, so we had to revise the plan. We left the live tucos at Federico's house and Tito dropped us off at Enrique's house with all my gear. Enrique arranged to borrow his

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El Peñasco, ~5 km N of Maldonado, Depto Maldonado, Uruguay

Nov 19 father's car in the morning so we could go to the Facultad to deal with the frozen tissues. We went to a cafe to get a sandwich around midnite, and got about 4 hours sleep.

Montevideo, Uruguay

Nov. 20 We got up about 5 am. Enrique took a taxi to get his father's car and finishes packing. We drove to the Facultad and emptied the nitrogen tank so we could sort the tissues. Enrique is loaning us part of the tissues (one kidney, a piece of liver, and a piece of heart), from the four animals we trapped near Maldonado. This is the general vicinity of the type locality for several species, since Darwin collected here during the voyage of the Beagle. He is also sending one of the skins to MVZ.

Enrique drove me to the airport for the flight to Buenos Aires. The downtown airport, Jorge Newbery, was much better than Ezeiza - less crowded, and the luggage came very quickly.

Arrived in Bariloche, Argentina on schedule on Saturday afternoon and was met by Paynie and Anita Pearson.

Dra. Enrique Lessa
Dr. Joe Cook
Guillermo D'Elia Master's student
Mariana Cosse undergrad
Federico Hoffman just graduated
Ana Luz Porzekansky undergrad
Gustavo uncertain

Noel Cortinas Master's student

Aroyu

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Bariloche, Rio Negro Province, Argentina

Nov. 21 When I arrived I got settled in an apartment in the building next to the Pearson's, and had dinner at their apartment. This morning we drove towards Cerro Otto, and hiked to the top along a path through Nothofagus beech forest. In a field along the road on the way we had stopped to examine mounds of Ctenomys mendocinus. In the forest we saw evidence of digging and snow cores of Chelemys, especially in patches of wild lilies.

From the top of Cerro Otto there is a good panoramic view of the region. Paynie and Anita pointed out several "micro localities" around Bariloche where they have caught either "Akodon" xanthorhinus or "Akodon" olivaceus. A. olivaceus is a forest animal extending to the west into Chile, while A. xanthorhinus is a steppe animal extending to the east of Bariloche. We are interested in collecting samples of tissues to be able to do protein electrophoresis as well as DNA sequencing in the region where the two apparently distinct morphological forms come in contact. Some animals appear to be

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Nov. 21 somewhat intermediate morphologically. The cytochrome b sequence I have so far is almost identical between A. olivacea and A. xanthorheinus collected near the intergrade region. We need information on the nuclear genome to help determine whether the two types differ in nuclear genes, perhaps with introgression of the mitochondrial genome from one type into the other. We also need a reference sample of Argenthorheinus from farther away to check the mitochondrial DNA sequence.

In the late afternoon we drove out to a site 4.2 km E of Bariloche, which we will call Las Victorias. The area has been marked off into lots that are for sale. We set three trap lines in steppe habitat, trying especially to set in bunch grass, which should be habitat for "Rhodon" xanthorheinus. Payne and Anita felt that the habitat turned out to be a bit moist for A. xanthorheinus, but we'll see. We set about 100 Sherman traps, baited with rolled oats and corn meal. We didn't set any of the snap traps because we won't have any liquid nitrogen until tomorrow, when we have an appointment to go to the Centro Atomico with Adrian Monjeau to get liquid nitrogen.

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Las Victorias, 4.2 km E Bariloche, Prov. Rio Negro, Argentina

Mon Nov. 22 We went out at 6:50 am to check traps. We caught 10 animals out of ~95 Sherman traps.

3 Eligmodontia morgani
2 Oligoryzomys longicaudatus
2 Auliscomys micropus
2 Abrothrix longipilis
1 "Akodon" xanthorhinus

One Oligoryzomys escaped, and we released the two Abrothrix longipilis. The other animals we took back to process.

At 9:00 am we drove to Ecotono, Rapaport's ecology institute. We got a message there to pick Adrian Monjeau up on the way to the Centro Atomico. We were able to get 10 liters of liquid nitrogen from Scotti, who works there.

We processed the animals in the afternoon, saving tissues (kidneys, liver, and heart) in liquid nitrogen, plus a piece of liver in alcohol as a backup for sequencing. We made skins and skulls for at least one specimen of each taxon, and preserved one Eligmodontia in formalin.

After dinner we drove out to the west of Bariloche to set traps near an area that had burned a few months ago. We are calling the site Pampa Quemada. I set my traps under bushes on the edge of a grassy area.

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Nov. 22 Anita also set in bushes with grass nearby. We thought we might get "Akodon" olivaceus there. Paynie set more out in the open near open tuco holes, hoping to catch "Akodon" xanthorhinus. We finished setting traps at about 9:00 pm, just as it was getting dark.

Nov. 23 We drove out in the morning to check the traps at Pampa Quemada. We had 97 traps out and caught 11 animals.

1 Eligmodontia morgani
7 Abrothrix longipilis
1 Oligoryzomys longicaudatus
2 Auliscomys micropus

The Eligmodontia was the only animal out in the open where Paynie had hoped to get A. xanthorhinus.

We drove back to town and unloaded the animals. Paynie went out at 11 am to set 22 Sherman traps in the meddow at Cerro Runge, across the road from the gravel road that goes up Cerro Otto. At 5 pm we checked those traps in the meadow. There were 2 Abrothrix longipilis, which we released away from the meadow.

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Nov. 23 We drove out along the road to Colonia Suiza to a spot near Lago Perito Moreno where the Pearsons had caught 6 or 7 *A. olivaceus* a few weeks ago. I set my line of 35 Sherman traps (5 of them small traps) in bushes on the edge of grassy areas near a creek leading into the lake. When I walked back along the line I had already caught 2 animals, both *A. olivaceus*. I caught a third *A. olivaceus* soon after that. It seems that this species is active in the daytime, or at least late afternoon. Payne caught 1 *Abrothrix* ~~olivaceus~~ olivaceus ~~too~~ and 1 *Oligoryzomys longicaudatus* before we left that evening. We also had 4 steel traps set for Tuco tucos near the burned area. We had a picnic supper in a beautiful spot by the lake before the final trap check for the evening.

Nov. 24 Drove out at 7:30 am to check the traps near Lago Perito Moreno on the road to Colonia Suiza. Out of ~~35~~ ~~+84~~ 119 traps we caught 21 animals, plus the ones from yesterday afternoon.

Abrothrix olivaceus	1
Oligoryzomys longicaudatus	11
Abrothrix longipilis	8
Auliscomys micropus	1

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Nov. 24 We didn't catch any animals in the two traps near the burned area.

In the meadow at the base of Cerro Runge in Paynie's 22 Sherman traps there were

6 *Abrothrix longipilis*
1 *Abrothrix olivaceus*
1 *Oligoryzomys longicaudatus*.

We processed the live animals when we got back to the apartment. After lunch & took tissues and made complete skeletons of some of the animals from the snap traps. At 4:30pm Paynie and I went out to set traps in a clearing above the road up to Cerro Otto. We alternated Shermans and snap traps, ~~about~~ 24 of each. This habitat is mixed, with some steppe plants and some plant of the moister forest. We will call this east knoll of Cerro Otto.

Nov. 25 Drove out at 7:30am to check the 48 traps on the east knoll of Cerro Otto. We got 2 animals:

1 *Eligmodontia morgani*
1 *Abrothrix xanthorhinus*

Both were in snap traps on the north facing slope. The *xanthorhinus* looks like a typical representative of that type. Across the road only about 400 meters away we can see the meadow where we got a typical *A. olivaceus*.

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Bariloche, Prov. Rio Negro, Argentina

Nov. 25 We packed up the camping gear and left town about 11:00 am to drive east of Bariloche on graded gravel road to Comallo, then 10 km south to where the Pearson's had seen mima mounds before. We set up the tent along a dirt road a little ways off the highway (= gravel road). We set off in three different directions to set traps - at all the Sherman and snap traps. Peg 26 large Sherman, 37 snap traps. Anita 30 large Sherman and 30 snaps. Payne set 56 near the mima mounds.

10 km S Comallo, 2900 ft., Prov. Rio Negro, Argentina

Nov. 26 We checked traps once before dark last night, and Anita had caught 1 *Abrothrix xanthorhinus*, 1 *Eligmodontia morgani*, and 1 *Phyllotis* so these animals were all active in daylight. We checked traps first thing in the morning, and found that the majority of the "Abodon" looking animals are some other species rather than "*Abodon*" *xanthorhinus*. One possibility is *A. inscatus*, but Payne doesn't think all the features quite match that species. Since we are interested in getting a good series of *A. xanthorhinus* for reference we decided to head back west towards Bariloche to trap the second night, hoping to get more *A. xanthorhinus*. We brought in our traps, and several more

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10 km S Comallo, 2900 ft., Prov. Rio Negro, Argentina

Nov. 26 animals had been caught in daylight. The totals for this site were as follows:

10 Eligmodontia morgani
2 Phyllotis
3 Abrothrix xanthorhinus
11 Akodon sp
2 Reithrodon auritas

Out of 179 traps we caught 28 animals. We broke camp and drove back through Comallo, stopping for cold drinks. We chose a new site for trapping along a dirt road off the main gravel road, a few miles from the agricultural station fenced area. We saw three rheas ~~on~~ near the road as we drove in. Set all the traps, heading out in various directions. Set in bunch grass and ~~nanes~~ bushes, denser shrubs, and along the edge of a wetter marshy meadow. A gaucho rode up on his horse at 7 or 8 pm to see what we were doing. Paynie had a conversation with him, but had trouble understanding his speech. He knew less about the animals than many local people Paynie has talked with. The gaucho supplied the name Campo General Roca.

We checked the traps before going to bed but there were no animals.

It was overcast during the night so it wasn't as cold sleeping out.

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Campo General Roca, Prov. Rio Negro, Argentina

Nov. 27 We got up before 6 am and checked the traps fairly early. No one caught anything here, although the vegetation had looked good. We packed up and headed back to Bariloche, getting back around noon.

In the afternoon we processed the live animals that we still had left from Comallo.

We considered various options for the next locality and decided that we would drive to Tronador on Sunday to try for *A. olivaceus* at the western end of a transect in Argentina. We chose this as the first option because trapping at Puerto Blest is more complicated logistically, involving taking the traps, liquid nitrogen tank, etc. on the tour boat to Puerto Blest.

Rio Castaño Overo

Nov. 28 We left Bariloche at about 10 am for the drive to Tronador. Some rain on the way, but the weather was changing rapidly so we decided to go ahead and see what it was like. On the drive in, near Hotel Tronador, the Pearsons spotted Sigfrido Rubulis, who is a climatologist and glaciologist sponsored by CONICET. Payne asked him if he knew where Julio Contreras had trapped, which would be the type locality for "*Akodon*" *mansoensis*. He said it was at the stream gaging station right

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Rio Castaño Overo,

Nov. 28 near his house, which was a different site than the stream gauging station Payne had scouted out earlier.

We decided to drive as far as we could along the side road beyond Pampa Lindo to set up camp for the first night, and stop to try for "Rhodon" mansoensis on the way back out the second night. It is not clear that mansoensis is anything other than "Rhodon" livacens.

We reached a point on the road where a small creek ran across, and decided not to try to drive past it. Set up the tent and set out our traps in intermittent showers. I set 30 large Sherman and 30 Museum specials, Anita set 28/28, Payne set 21 Shermans and 36 Museum specials.

Nov. 29 During the night there was heavy rain, turning to snow. When we went out to check the traps there was much more water everywhere. We had to wade through puddles to get the traps. We were pretty wet and cold by the time we had checked the traps. Many traps were sprung by the rain, but we did catch quite a few animals.

Abrothrix longipilis	5	+ 1 wet animal, probably longipilis
Abrothrix olivaceus	3	
Geoxus valdivianus	2	
Auliscomys micropus	3	

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Rio Castaño Overo,

Mon Nov. 29 We processed the animals in the car, ocasionally running the heater to warm up the car a bit. Then packed up and started to drive out the road. At the first big mudhole we cut branches to fill in where the wheels would go, and Paynie drove through that hole fairly easily. Farther on, however, we failed to check ~~the~~ a puddle before driving through, and the car sank in deeply, with the car tilted to the left and the water up to the top of the left front wheel. Paynie set off in the snow towards Pampa Linda, where there was a park guard station and the restaurant where we had eaten lunch. Anita wanted to stay with the car, so I stayed with her. We had a snack and waited there for an hour or more, then decided to pack up some gear in case we ended up staying overnight at the hosteria and walked towards Pampa Linda. Just as we got there we met Paynie with a park guard and a man with a horse. The first atempt with just a rope around the horse's neck was not effective. A second attempt with more park workers and a saddle and cinch arrangement on the horse was just getting organized when the red jeep belonging to someone connected to the family at the restaurant arrived. The jeep

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Rio Castaño Overo

Nov. 29 was able to pull the van out on the first try. It was too late to drive up to see the glacier today because the traffic is one way going down after 4pm, and we needed to get to our next site to get the traps out.

We drove down a gravel road past a quarry to a cow pasture along the upper Rio Manso just above where the river flows into Lago Mascardi. Paynie thinks this is only a kilometer or so from Julio Contreras' type locality for *A. mansoensis*.

Much of the area seemed to be overgrazed, but we set in bushes near as much tall grass as possible. We set 165 traps. Paynie grilled steaks for dinner. During the night we had snow again, even though we were farther east, and lower in elevation. This kind of storm is unusual this late in the spring (equivalent to the end of May in the US).

Lago Mascardi (west end), Prov. Rio Negro, Argentina

Nov. 30 In spite of the snow we caught several animals here:

9 - *Abrothrix olivaceus* (same thing as *mansoensis*?)
1 - *Oligoryzomys longicaudatus*
1 - *Abrothrix longipilis*

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Lago Mascardi (west end), Prov. Rio Negro, Argentina

Tues. Nov. 30 We spent the morning processing the animals, saving three alive in Shermans to preserve in formaldehyde when we get back to Bariloche. After lunch we drove up to Tronador to see the Ventesquero Negro - black glacier, which is covered with dirt and rocks that have fallen from the surrounding rockfaces onto the glacier. At Cerro Tronador we hiked up the path as far as it was open to get a closer view. The rain and clouds obscured some of the mountain, but it was still impressive. We could hear the "thunder" from which the mountain gets its name as blocks of ice broke loose and fell in avalanches. Paynie was the only one watching later when the largest chunk fell. After 4pm we could start driving in the downhill direction back to Bariloche. It was raining all the way to Bariloche, which again is unusual. This is an unusually wet year following several dry years.

Bariloche, Prov. Rio Negro, Argentina

Wed Dec. 1 We did errands in the morning, then in the afternoon we drove out to the area next to the Hipodromo (race track) to look for suitable habitat. Although several houses are being built

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Bariloche, Prov. Rio Negro, Argentina

Dec. 1 in that area, we did find some open space to set traps. We set out about 96 traps, mostly the large Sherman's because it was raining and the snap traps might get set off by the rain.

Dec. 2 We went out at 7:15 am to check the traps next to the racetrack (Hipodromo). We caught 10 animals, as follows:

1 Eligmodontia morgani
5 Abrothrix olivaceus
4 Oligoryzomys longicaudatus

We left the traps set, and came back to process the animals. In the afternoon we went back to Hipodromo and added snap trap lines to the Sherman's already set.

Dec. 3 We went out at 7:15 am to check the traps at the Hipodromo and bring them in. We had 163 traps out and caught 12 animals. There was rain during the night and in the morning.

6 Abrothrix (~~xanthorhinus~~) olivaceus
1 Eligmodontia morgani
5 Oligoryzomys longicaudatus

We came back and processed the animals. In the afternoon we drove east of town looking for possible trapping sites for A. xanthorhinus. We ended up in the southwest corner of the

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Bariloche, Prov. Rio Negro, Argentina

Dec. 3 real estate development, Las Victorias. We had trapped earlier in a different section of Las Victorias. The area we set in today seemed to be undisturbed, rich steppe habitat. We set out a total of 159 Sherman plus snap traps. It was cold, windy, and raining when we finished setting.

Sat Dec. 4 We went out at 7:30 am to check the traps at Las Victorias. We caught ~~40~~ 39 animals, which was 25% trap success. This was our most successful night of trapping so far.

8 Abrothrix xanthorhinus
7 Oligoryzomys longicaudatus
4 Eligmodontia morgani
15 Abrothrix longipilis
5 Auliscomys micropus

We came back and processed the animals, leaving the traps set at Las Victorias. In the late afternoon we went out and added more traps in the bunch grass area. Paynie thought some of his traps may have been taken.

Sun Dec. 5 Went out to Las Victorias at 7:30 am to bring in the traps. Paynie was missing several traps, and one Sherman had been taken from one of my lines. There were horse tracks nearby.

From the afternoon of Dec. 4 we had

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Bariloche, Prov. Rio Negro, Argentina

Sun Dec. 5 2 *Abrothrix longipilis* and 1 *Abrothrix xanthorhinus*

On Sunday morning, Dec. 5, we had another 22 animals.

2	*Reithrodon auritus*
2	*Auliscomys micropus*
4	*Oligoryzomys longicaudatus*
2	*Eligmodontia morgani*
8	*Abrothrix longipilis*
4	*Abrothrix xanthorhinus*

It was windy, with dark clouds, but no rain while we were out. We went back to town to process the animals after releasing the species we weren't after.

In the late afternoon we drove east to camp on Estancia El Condor and try for a more eastern sample of *Abrothrix xanthorhinus*. There was a nice green grassy patch to set up camp. We set traps in a bunchgrass meddow, across a hillside with bunchgrass and shrubs, and on a slope above a small creek; 160 traps total set out.

Mon Dec. 6 We got up at 6:00 am to check the traps. We caught a total of 48 animals.

23	*Abrothrix longipilis*
7	*Abrothrix xanthorhinus*
13	*Auliscomys micropus*
3	*Oligoryzomys longicaudatus*
2	*Reithrodon auritus*

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Bariloche, Prov. Rio Negro, Argentina

Mon. Dec. 6 We released all except the *Abrothrix xanthorhinus* and drove back to town. I processed the two dead *Abrothrix xanthorhinus* while Paynie talked with Michael Cristie about their poster. At 11:00 am Paynie and I drove north past the site where Eileen Lacy is studying *Ctenomys sociabilis* and on to the Traful Valley. Paynie took a habitat shot of one of the caves where they found amber, similar to the woodrat amber in the western US. We also climbed around at the entrance to a cave where Michael Cristie had found amber, trying to find a sample to show with their poster. We didn't find any very good samples. I got a picture of the cave where Paynie has analyzed the bones from owl pellets over the last several thousand years. The weather was very good today, the clearest day we have had. After a week of rain that was very welcome.

When we got back to Bariloche we processed the rest of the animals from El Condor. Milton Hallardo was expected at the Pearsons, but didn't show up today.

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Bariloche, Prov. Rio Negro, Argentina

Dec. 11 I attended the Argentine Mammal Society meetings in Bariloche Dec. 8-10. I presented a poster on akodontine relationships, based on our paper in press in the Biol. J. Linn. Soc. I had a chance to talk with several Argentine mammalogists, which worked out well. On Dec. 11 I left Bariloche for the flight home. I poured off all the liquid nitrogen from the tank at the airport in Bariloche. When I reached San Francisco Gary met me and we went directly to Barker Hall to deal with the frozen tissues. They were still frozen solidly after 27 hours in transit.

	Eligmodontia morgani	Akodon (Abrothrix)? xanthorhinus	Abrothrix longipilis	Oligoryzomys longicaudatus	Auliscomys micropus	Akodon (Abrothrix)? olivaceus	Akodon sp. iniscul	Phyllotis xanthopygus	Reithrodon auritus	Geoxus valdivianus	
22 1993											
s Victorias	3	1	2	2	2						
Nov. 23, 1993											
ampa Quemada	1		7	1	2						
Nov. 23, 1993 meadow at Cerro Runge			2								
Nov. 23, 1993 road to Colonia Suiza				1		4					
Nov. 24, 1993 road to Colonia Suiza			8	11	1	1					
Nov. 24, 1993 meadow at Cerro Runge			6	1		1					
Nov 25, 1993 10 km S Comallo	10	3					11	2	2		
Nov 26, 1993 ~~ago General Roca~~ Campo General Roca	none										
Nov. 28-29 Castaño Overo			6		3	3				2	
Nov. 30 ago Mascardi			1	1		9					
2-3 podromo	2			9		11					
c 4-5 s Victorias	6	13	25	11	7				2		
Dec. 6 El Condor		7	23	3	13				2		
	22	24	80	40	28	29	11	2	6	2	= 244

Nov. 22 Paynie
2 Eligmo
1 Oligoryzomys

Peg
1 Eligmo

Anita
2 Aulis comys
1 Oligo
2 Abro longi
1 Abro xanth

Nov. 23 am Pampa Quemada
OPP 31
1 Elig.
1 Abroth longi
MFS 33
3 Abro longi
AK 33
10 Oligo
3 Abro longi
2 Aulis comys

OPP 22 Sherman in meadow Cerro Runge
11am
AT5 on bed 2 Abroth longi (released)

Nov. 23 pm road to Col. Suiza
Peg 35 (5 small)
Peg 3 Abro. olivaceus 7-9 pm
OPP 1 Abro oliv.
1 Oligoryzomys
(4 trico sets out) - none get

Nov. 24 rd to Col Suiza
> Peg 35 (5 small Sherm)

A. oliv	1	= 1
Oligoryz.	111	= 3
Abrothrix longi	1	= 1

> Anita 38 traps (11 snaps)

Aulis comys juv	1	= 1
Oligoryzomys	11	= 2
Abrothrix longi	2	= 2

(One of the Oligoryzomys was in the repeater trap)

> Paynie (16 small Sherman
6 large Sherman
24 snap traps)

Oligoryzomys	1 + 5	= 6
Abrothrix longi.	11 + 3	= 5

the 5 + 3 are from snap traps

35
38
46
119

Nov. 24 meadow Cerro Runge 22 Sherman traps

6 Abrothrix longipilis

1 Akodon olivaceus

1 Oligoryzomys

Nov. 25

Pey 27 large Shermans (one needs wire) 63

20 snap 60

+17 snaps 56

179

AK 60 (30 snap, 30 large Shermans)

OPP 8 snaps 15 snap +15 Shermans 8 Shermans 10 snaps

catch at 10 km S Comallo

Eligmodontia

Ab. xanthorhinus

traps

26

87 > before dark 9pm

~~30~~

30 AK 1 xantho 1 Eligmo 1 Phyllotis

56 > am first check

179

OPP 5 AK sp. 1 Reithro

AK 6 Eligmo 1 xantho 1 Reithro 1 wren

Pey 1 AK sp 1 Phyllotis 2 Eligmo

final check

OPP 5 AK sp 1 Reithro

AK 1 xantho 1 Eligmo

Eligmo	10
Phyllotis	2
Ab. xanth	3
AK sp	11
Reithrodon	2
	28

Nov. 26 23 75 Shermans 156 traps

23 81 snap no animals

~~47~~ 156

Campo General Roca

Nov, 28
Ranga Lenda
Rio Castaño Overo

Peg snap - 2 Abro longi 60 (30/31)
- 1 ? olive

Aleman - 1 longi
- 1 olive
- 1 Geoxus
- 1 Aulisomys

Ab. longi	5
Ab. olive	3
Geoxus	2
Aulisomys	3

AK - 1 longi (28/28)
- 1 olive
- 1 Geoxus
- 1 Aulisomys
1 ? wet longi

OPP - 1 longi 21/21
- 1 Aulisomys +15 snaps

Lago Mascardi

OPP	27/27	54	olive	9
MFS	~~30~~ 25/30	55	Oligoryz	1
AK	28/28	56	longipilis	1
		165		

Peg Oligoryzomys 1 -
olive 2 -

OPP longi 1 -
olive 2 -

AKP olive 5 -

Dec. 2, 1993

near Hipodromo

Peg 27 fhermans

OPP 21/21 42

AKP ~27

Eligmodontia 1

Aprothrix olivaceus 4 + 1 juv?

Oligoryzomys 4

Dec. 3, 1993 Hipodromo 26/26 27/27 21/21 #5 ang

OPP 1 (xantho + 1 xantho) olive 163

1 Eligmo

AK + MFS 5 dead Oryzomys

{ 3 dead (xantho) olive
{ 1 live (xantho) olive

Dec. 4 Las Victorias

Peg 23/23 AK 28/28 OPP 25/32 ang

AKP – Aulisomys (1 + 1?) 46

10 Oligoryzomys (1 + 2) 56

Eligmodontia [1] 25

Abrothrix longi (2 + 2) 32

159

MFS Eligmo [3] OPP

Ab. Xantho 4 15 1 + 3

14 Aulisc (1?) (1 + 1?)

Ab longipilis (5) (4 + 2)

Oligoryzomys (1) (1 + 2)

Las Victorias

8+1+4	Ab xantho	13
7+4	Olig. longi	11
4+2	Elig	6
15+2+8	Ab longipilis	25
5+2	Aulisc	7
2	Reithrodon	2

159 + 10 Sherman + 10 unp traps

Dec 4 am 2 Ab longi 1 xantho

Dec 5 am

I	Reithrodon	2
III ~~IIII~~	Abrothrix longipilis	8
II II	Oligoryzomys	4
II	Aulico	2
II II	xantho	4
II	Eligmo	2
		22

Dec 6 El Condor

total 48 160 traps

23 Ab. longipilis

7 Ab. xanthla

13 Aulicomys

3 Oligoryzomys

2 Reithrodon

xantho	olive
15	18

in Peg's catalogue

69 specimens

	Rheidae		
U	Ñandú	Rhea americana	Greater Rhea
A	Choique	Pterocnemia pennata	Lesser Rhea
	Threskiornithidae		
A	Bandurria baya	Theristicus caudatus	Buff-necked Ibis
	Anhimidae		
U	Chajá	Chauna torquata	Southern Screamer
	Anatidae		
U + A	Cisne Cuello Negro	Cygnus melancoryphus	Black-necked swan
	Cathartidae		
A	Cóndor	Vultur gryphus	Andean Condor
A	Jote Negro	Coragyps atratus	Black Vulture
	Falconidae		
A	Chimango	Milvago chimango	Chimango Caracara
	Jacanidae		
U	Jacana	Jacana jacana	Wattled Jacana
	Charadriidae		
U + A	Teru-Teru Común	Vanellus chilensis	Southern Lapwing
	Laridae		
U	Gaviota capucho café	Larus maculipennis	Brown-hooded Gull
	Psittacidae		
A	Loro Barranquero	Cyanoliseus patagonus	Burrowing Parrot
	Strigidae		
U	Lechucita Pampa	Athene cunicularia	Burrowing Owl
	Rhinocryptidae		
	Chucao	Scelorchilus rubecula	Chucao Tapaculo

Tyrannidae

p. 236 A Fiofío silbador *Elaenia albiceps*

White-crested Elaenia

Steppe plants

Neneo *Mulinum spinosum* pincushion shape

Colletia spinosissima white flowers

bunch grass

Cola de Pichi = Colapiche *Nassauvia glomerulosa*

Senecio

Forest

Nothofagus pumilio Lenga

" *dombeyi* Coihue

" *antartica* Ñire

Retamo *Diostea juncea*

Fabiana imbricata Palo Pichi

scotchbroom (introduced)

Notro *Embothrium coccineum*

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1979-1996

Journal

1994

Uruguay: Depto. Maldonado

Chile: Prov. Valdivia

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JOURNAL

Las Flores, Depto. Maldonado, Uruguay

Nov. 21 We left Maldonado on Monday morning in the department vehicle from the Facultad de Ciencias. The party consists of Noel Cortinas and Federico Hoffman, both masters students with Enrique Lessa; Leo Joseph, a post-doc in Enrique's lab, from Australia, Enrique, me, and Tito, the driver of the vehicle, who also cooks. We drove east from Maldonado along the coast to the small town of Las Flores. We are using the country house of Enrique's parents as our base.

After lunch we drove northeast to a site along the Arroyo El Renegado, 3 km E of Pan de Azucar, Depto. Maldonado. Along the stream there was good riparian habitat, monte ribereño. We hiked with the traps across several cow pastures to get to the area farther downstream where we were going to set traps. Starting at an old ruined mill we set lines moving downstream. Federico and I set two lines of Shermans with 20 traps each. One line was along the top of the hill along the edge of a grassy area in small rock outcroppings. The second line was along the hillside with traps in clumps of bushes. We also set 16 small snap traps and 2 large ones in the

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Las Flores, Depto. Maldonado, Uruguay

Nov. 21 rocks and bushes right near the middle. ~~Back at the bridge~~ Enrique and Noel set a comparable number of traps right along the river. Back at the bridge where the vehicle was parked we set the remaining ~~#s~~ 40 Sherman and 16 snap traps right next to the stream in very moist areas. We also set 6 large wire cage traps at the edge of the stream.

Jito built a fire and cooked a "proper" asado (done out in the country over wood) for dinner. Around 11 pm we went out to check the traplines. Enrique and Noel caught one Oxymycterus in a snap trap along the stream, and a larger Scapteromys in a Sherman. We drove back to the house at about 12:30 am, took tissues from the Oxymycterus, and went to bed.

Nov. 22 Went out in the morning to bring in the Traps from Arroyo El Renegado. We caught three Scapteromys and one Cavia in the traps along the creek next to the bridge. Nothing in the trap lines near the old mill. Went back to process the animals. One of the Scapteromys escaped from a wire cage trap, so in addition

Photos

19 Ctenomys pearsoni
20
21

MF Smith
1994

JOURNAL

Las Flores, Depto. Maldonado, Uruguay

Nov. 22 To the Oxymycterus whose tissue we took the previous night we had 1 Cavia and 3 Scapteromys to take tissues from. Noel karyotyped the 3 Scapteromys. We are splitting the tissues so we each have a set. I am putting one of the Scapteromys in my catalogue, with a number also in the CA series since Enrique will keep the karyotype for Federico's project.

Enrique went along with Leo and Tito in the afternoon to trap Ctenomys since Jim had said he would be interested in having some fluid preserved specimens for MVZ. He caught 2 Ctenomys in the late afternoon.

At the house Federico had to leave to take the bus back to Maldonado for a meeting. He helped me set a few traps near the house before he left, and I finished setting 40 Sherman's near the house. Later I carried another box of 40 across the field to set near the Arroyo Tarariras. There were 4 lines with 10 traps each, starting with one line on the hillside, one line in low shrubs at the base of the hill, one in thick vegetation near the stream, and one in grass and shrubs along a small path. Noel set 26 snap traps across the road above the house in shrubs. Noel and I set 19 snap traps in shrubs

	Nov. 21	Nov. 22	Nov. 23
Oxymycterus	/		
Scapteromys	//// one escaped		
Cavia	/		
Ctenomys			

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JOURNAL

Las Flores, Depto. Maldonado, Uruguay

Nov. 22 behind the house and along the edge of the driveway, so we had 80 Shermans and 45 snap traps set.

We had dinner around 11:30pm and got to bed at 12:30 or 1:00 am.

Nov. 23 We caught 4 *Oxymycterus* in grass and shrubs ~~near~~ near the house, one in a snap along the driveway and 1 in a snap on the hillside above the house. Down by the arroyo we caught 1 *Oxymycterus* as well.

Enrique and Noel karyotyped 4 *Oxymycterus*. We are still trying to figure out if there are two forms of *Oxymycterus* here. Some seem to have more orange on the ventral side.

In the afternoon Enrique, Noel, and Federico went to set more traps near the bridge. We left the 40 Shermans there from the previous night, and they added the other 80 Shermans there, plus some lines of snap traps. I stayed at the house to continue skinning since we had several animals to do still.

Enrique left in the evening because he had to take the bus back to Montevideo. At the house we finished skinning and got to bed a bit earlier since we needed to pull the traps early in the morning and get the vehicle back to Montevideo since another group was going in

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Las Flores, Depto. Maldonado, Uruguay

Nov. 23 the field.

Nov. 24 We got down to the bridge at about 6:30am to bring in the traps. It took us until about 8:30. We had several animals in snap traps and many in Sherman's as well,

1 Cavia
Oxymycterus
Scapteromys
Akodon

We drove back to the University, and processed animals the rest of the day and the next day.

Fundo San Martin, Comuna San José, Provincia Valdivia, Chile

Dec. 8 I arrived in Valdivia, Chile on Tuesday December 6. I flew from Montevideo to Santiago on Monday Dec. 5. On Tuesday morning Dr. Laura Walker met me at my hotel and we went together by taxi to the medical school, where Laura Walker and Angel Spotorno have their offices and lab space. We talked about our respective work, and I had a chance to see their setup. In the evening I flew to Valdivia and Milton Hallando met me at the airport. We went immediately to the campus where Milton

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Fundo San Martin, Comuna San José, Provincia Valdivia, Chile

Dec. 8 had liquid nitrogen waiting to replenish the tank that contained tissues from Uruguay. Then we stopped for tea at Milton's parents' house, and on to Milton's house.

On Wednesday we gathered equipment and made arrangements for the field trip on Thursday. Milton can't go because it is the end of the semester and he has to deal with exams.

On Thursday morning we met at the University. A university driver and truck will take us to the reserve at San Martin, and pick us up again on Saturday at 11:00am.

We left Valdivia at about 9:45am, and arrived at the reserve at about 11:45am. The party includes Freddy Mondaca, who is Milton's assistant, + Vicente Gomez, who is a technician who started working recently at the university and is interested in learning about trapping. At the reserve Pedro Muñoz lives at the house permanently. He has a lot of experience trapping at the reserve.

We had lunch, then went out to spend the afternoon setting traps. We used a

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Fundo San Martin, Comuna San José, Provincia Valdivia, Chile

Dec. 8 wheelbarrow to transport the traps along an overgrown trail through the forest. We set along the edge of an enclosure that hasn't been used for four or five years. There are large patches of dead bamboo. We set along the edge where there was some green vegetation. We took the remaining Shermans to another area on a trail that starts from the drive closer to the house. Altogether we set 160 Sherman, plus 35 Museum Special snap traps.

Pedro Muñoz said at lunch that he has been catching very few animals on the lines he runs twice a month.

The reserve is run by the institute of ecology and evolution, which is Milton's department. The area has the only patch of native forest left in the region. Some of the species of trees present in the forest are as follows:

Notofagus glauca	roble blanco	
Notofagus obliqua	roble pellín	
Aristotelia chilensis	maqui	
Eucryphia cordifolia	ulmo	
Luma apiculata	arrayán roja	cinamon colored bark
Amomyrtus luma	luma	
Gevuina avellana	avellano	
Embothrium coccineum	notro	

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Fundo San Martin, comuna San José, Provincia Valdivia, Chile

Dec. 8

Persea lingue	lingue	
Laurelia sempervirens	laurel	
Laureliopsis philipiana	tepa	
Podocarpus saligna	mañío de hojas largas	
~~Podocarpus~~ Saxe-Gothaea conspicua	mañío de hojas cortas	
Lomatia dentata	avellanillo	
Lomatia ferruginea	romerillo	
Drimys winteri	canelo	
Lomatia hirsuta	radal	
Amomyrtus meli	meli	
Myrceugenia exsucca	~~temu~~	patagua
Blepharocalyx cruckshanksii	temu	
Caldcluvia paniculata	tiaca	
Weinmannia trichosperma	tineo	
Sophora microphylla	pelú	
Nothofagus betuloides	coigüe	
Maytenus boaria	maitén	
Aextoxicon punctatum	olivillo	
27 Pseudopanax laetevirens	traumén	

bushes

Berberis darwinii	michay
Viola rubella	violeta
Azara microphylla	chinchin
Tepualia stipularis	tepú
~~Crinodendron hookerianum~~	~~chilco~~
Escallonia pulverulenta	siete camisas

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Fundo San Martin
Chile

Dec. 8	Ribes	magellanicum	zarzaparilla
	Rubus	ulmifolius	murra
	Rosa	moschata	rosa mosqueta
	Senna	stipulacea	palo negro
	Tristerix	corymbosus	quintral
	Rhamnus	diffusus	murta negra
	Fuchsia	magellanica	chilco
	Buddleja	globosa	matico
	Acrisione	denticulata	palpalén
	Solanum	crispum	tomatillo
	Solanum	cyrtopodium	tomatillo
17	Chusque	quila	quila bamboo
vines	Cissus	striata	voqui colorado
	Muehlenbeckia	hastulata	voqui negro
	Sarmienta	scandens	medallita
	Mitraria	coccinea	botellita
	Campsidium	valdivianum	pilpil-voqui
	Philesia	magellanica	coicoghue
	Lüzuriaga	radicans	coral
	Luzuriaga	polyphylla	coral, palma
8			

The list of trees, shrubs, and vines was provided by Pedro Muñoz by looking through a book Milton gave me to bring along to the field. Pedro determined for each plant whether it was present on the reserve. The book is

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fundo San Martin, comuna San José, Provincia Valdivia, Chile

Dec. 8 Flora Silvestre de Chile, zona araucana, by Adriana E. Hoffmann 1982 Fundacion Claudio Gay 258 pp.

After dinner we watched the swallows in the clearing next to the house. The swallows were replaced by bats as the light faded. We could hear at least three different kinds of frogs calling from the river.

Dec. 9 We got up at 8:00, had breakfast, and went to check the traps. We caught 4 Abrothrix livacens, three in Shermans and one, (a juvenile) in a snap trap. We processed the animals at the field station. We saved frozen liver and kidney for me, as well as liver in alcohol. In addition we saved a piece of liver to freeze for Claudia, one of Milton's students. They are accustomed to using cactus spines for the legs and tail of the study skins.

After lunch Pedro brought in some plant specimens that we looked up in the book of Chilean trees, shrubs, and vines. Later we went on a hike to look at trees on the way to one of Pedro's trap lines. We saw a hummingbird nest with two young in it.

We put more bait in the traps in the late afternoon, then had dinner. After dinner Pedro and I walked through the woods

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Fundo San Martin, comuna San José, Provincia Valdivia, Chile

Dec. 9 and across a field to where we could see the river. We saw a couple of black-necked swans in the distance. Puma live near the low marshy areas and in the woods, but we didn't see any sign of them.

We set up a bat net but the bats were flying fairly high off the ground and we didn't catch any.

Dec. 10 Pedro made sopapillas for breakfast, then we went out to collect the traps. We caught another 4 *Abrothrix olivaceus*. The driver arrived with the car but Freddy decided to go ahead and process the animals there, which was good because then when we got back to Valdivia we just had to unload the equipment and specimens.

IEE

Pearsonomys liver in alcohol

5461 negro

5462 negro

5463 gray (ploma)

5464 gray

5465 gray

3132 (type 2 adult) = gray

5427 Frozen liver Pearsonomys
(negro?)

579 Dromicrops

and Milton Lang Mammalia pages 1779
Mercer (1983)
Holling & Schilling (1981)
also Hongentt 125 (88 pages
also Pearsonomys
Milton has Syst. Biol
Evolution
J. Mammalogy
also Mol. Biol Evol.

Relaciones filogenetica
Send to Milton:
info on equipment for sequencing

Miami 2 hours earlier than Santiago

M. F. Smith
1979-1996

Journal

1996

Argentina: Prov. Rio Negro

MF Smith
1996

JOURNAL

Bariloche, Rio Negro Province, Argentina

Jan. 17 Jim Patton and I left San Francisco on Jan. 16 at ~2:00pm. Our plane was an hour late taking off, so we only had 20 minutes to change planes in Miami. Arrived at Ezeiza airport in Buenos Aires and took a taxi to Jorge Newbery airport. Changed Peg's flite to 5:00pm so we would be on the same plane. Elleen Lacey met us at the airport in Bariloche. From my house in Pleasanton I had been in transit for about 29 hours. We checked into the Residencial Tito in Bariloche, had dinner, and went to bed.

Jan. 18 We went to pick up the Pearson's van from the people at the bicycle shop across from Pearson's apartment. Bought groceries and met Tommy Christie at ~2:15pm. We drove to our first site off highway

Emilio A loaded our gear into a wagon which he pulled by tractor up to the refugio while we hiked up. We set up the tents in an open meadow near the hut. Jim set out 20 Victor rat traps and caught 3 Abrothrix longipilis 2 Chelemys macronyx, and 3 Aeconaemys in beech forest along the stream with some bamboo and lots of downed logs. We are taking tissues in liquid nitrogen, making a few flat skins since we don't have any cotton, and making complete skeletons of the other animals.

Jan. 19 Tommy Christie led us up to a higher area where they had found a population of Ctenomys sociabilis last year. After showing us the site Tommy left to go back down to meet his family. Jim set Macabee traps and Eileen showed me how to set a noose to catch tucos by hand.

MF Smith
1996

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Jan. 19 We moved to a moister area nearby to try noosing in the afternoon, but none of us caught any tucos, although Eileen saw some and we could hear them calling. The traps back at the campsite caught:

5 Abrothrix longipilis
4 Chelemys macronyx
1 very dark long-haired animal — not sure what this is

Jan. 20 Jim and Eileen set off in the morning to hike back up to the higher elevation site to try for tucos. I stayed in camp to process the animals we caught there.

Abrothrix longipilis
Chelemys macronyx
Aconaemys